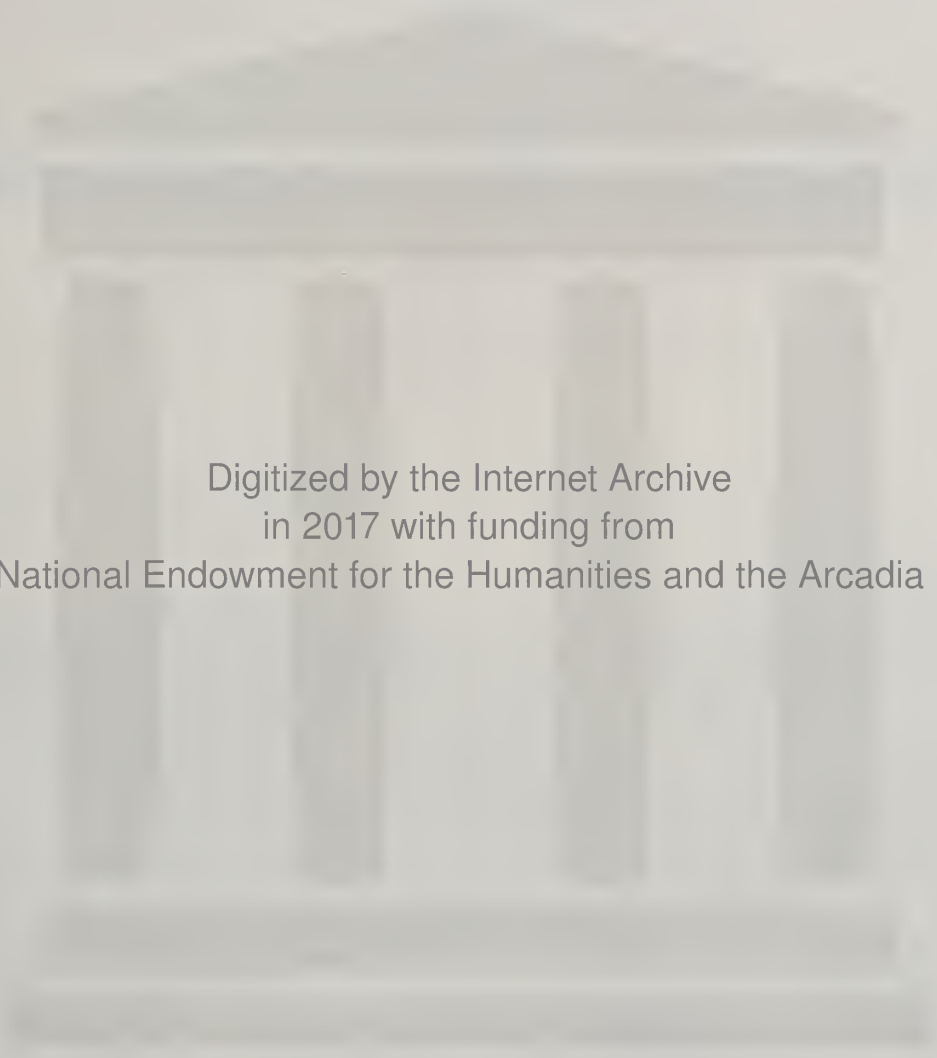


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RHODE ISLAND



JANUARY, 1967

Medical Journal

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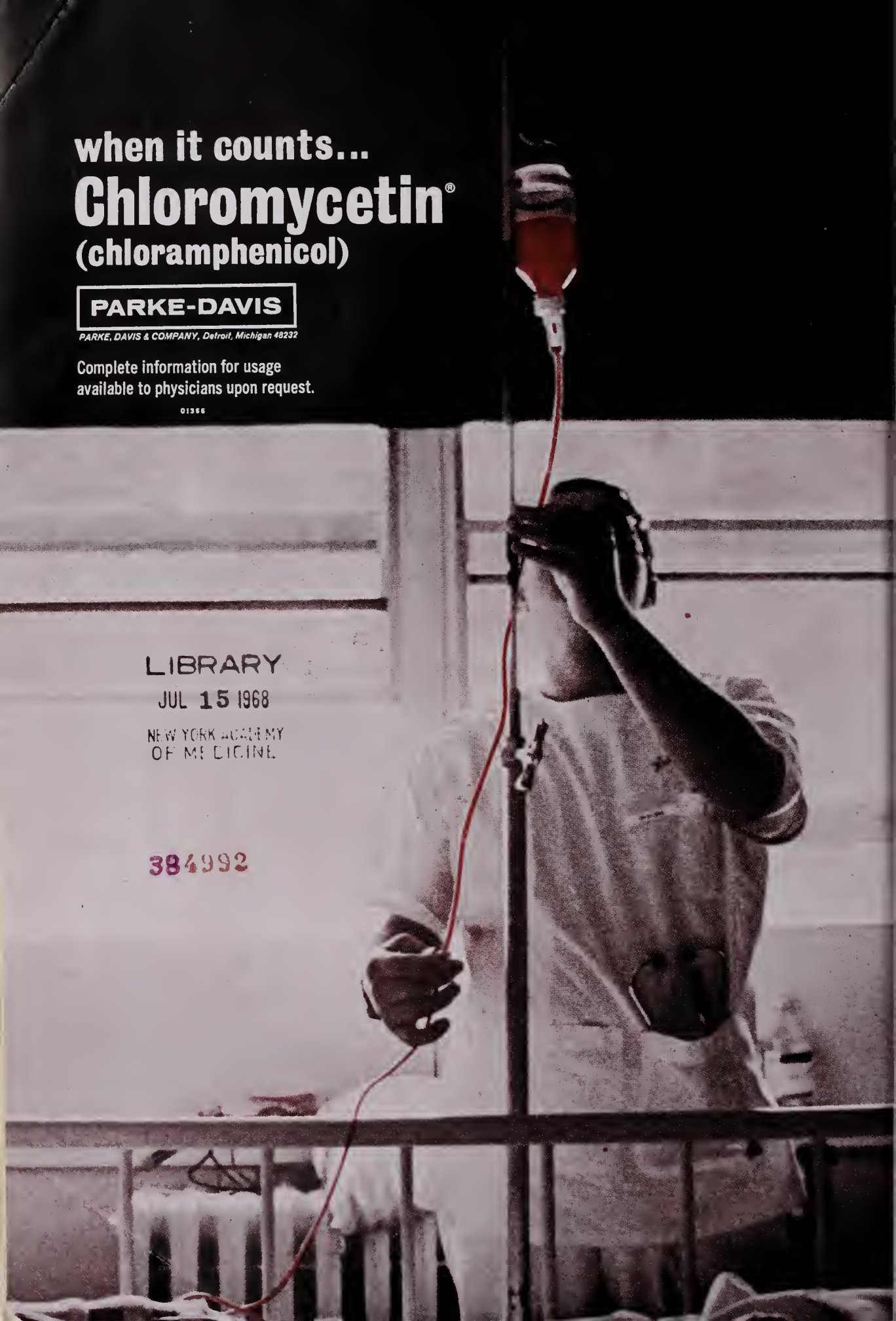
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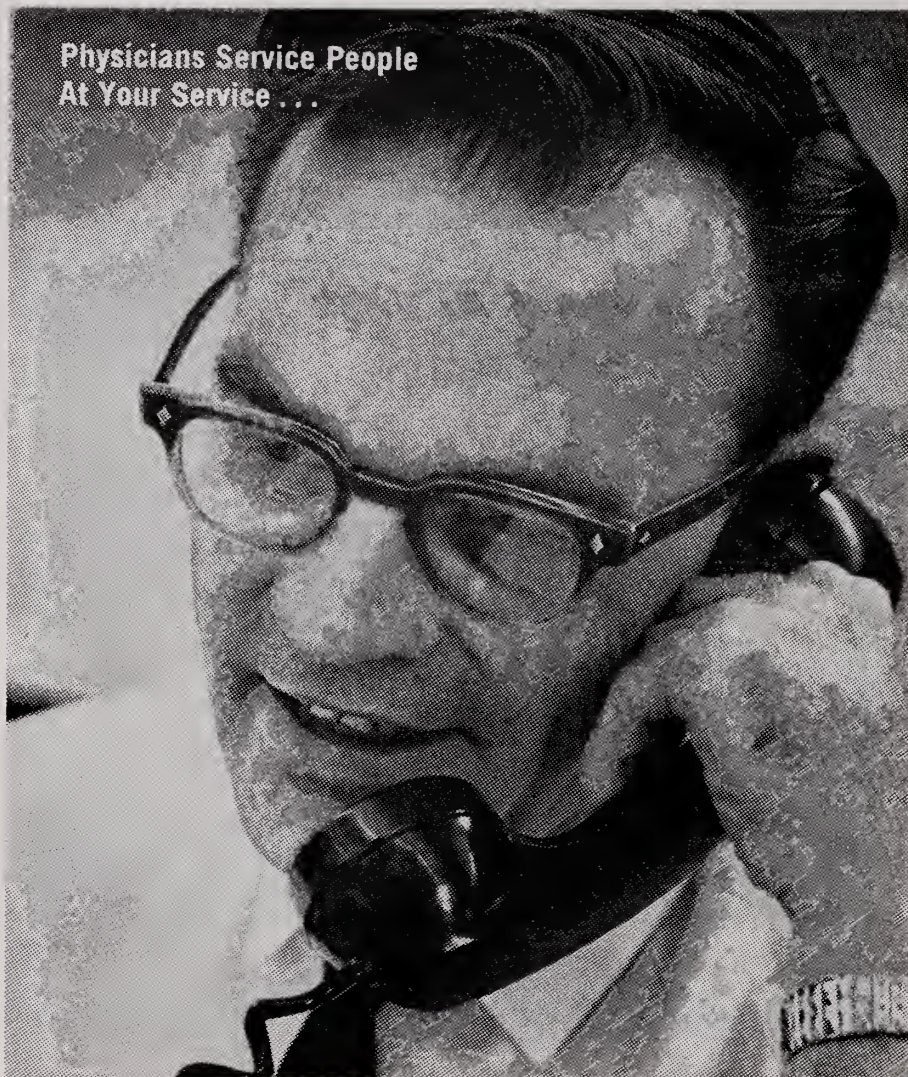


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for multiple contraceptive action that has produced a record of unexcelled effectiveness

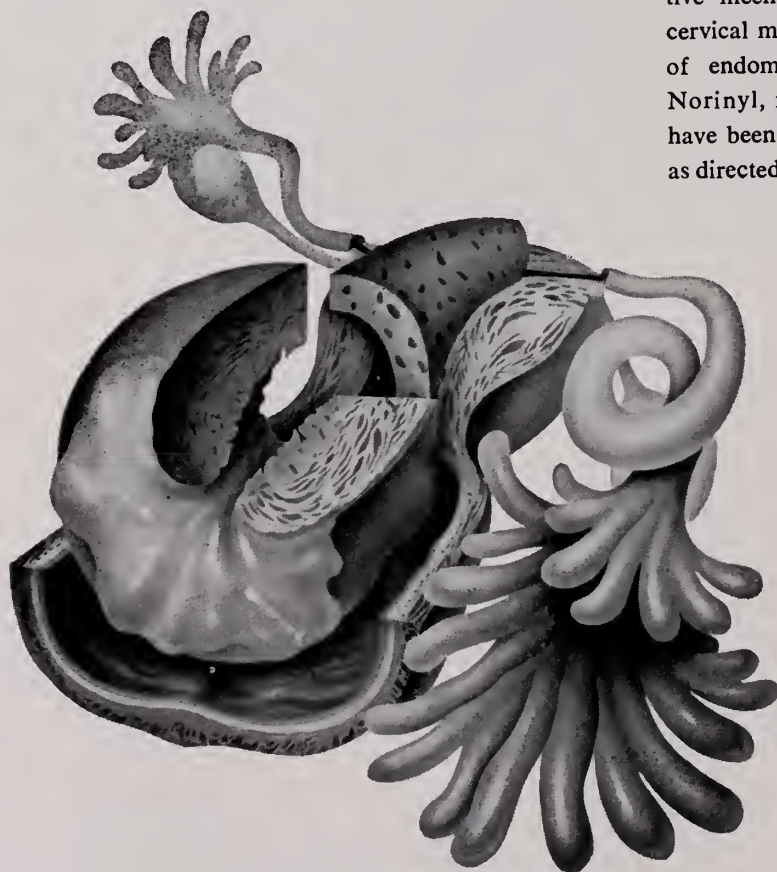
**inhibition of ovulation by means of
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**production of a cervical mucus hostile to
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to egg implantation**

no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus¹⁻¹³ and an acceleration of endometrial changes.^{1-3,7-16} With Norinyl, no unplanned pregnancies have been reported to date when used as directed.



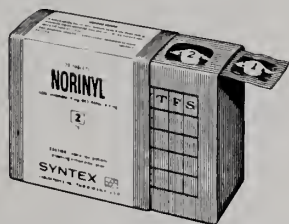
plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

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An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule; individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to con-

firm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-

ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism. **Side Effects:** Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187:664 (Feb. 29) 1964. 2. Brvans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. 3. Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. 4. Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. 5. Hammond, D. O.: Ibid. 6. Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. 7. Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. 8. Kempers, R. D.: GP 29:88 (Jan.) 1964. 9. Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. 10. Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. 11. Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. 12. Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. 13. The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. 14. Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. 15. Merritt, R. I.: Appl Ther 6:427 (May) 1964. 16. Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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†The need for these substances in human nutrition has not been established.

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Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

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DISTRICT MEDICAL SOCIETY MEETINGS

PAWTUCKET MEDICAL ASSOCIATION

The regular monthly meeting of the Pawtucket Medical Association was held on Thursday, November 17, 1966 at the Windsor Restaurant, Pawtucket, Rhode Island.

There were 34 members and one guest in attendance.

Dr. Robert Fortin called the meeting to order at 8:30 p.m.

The minutes of the previous regular meeting were read and approved by the Society.

A communication from Mr. Augustine W. Riccio, Director of the Department of Social Welfare, accepting the association's invitation to address Pawtucket physicians regarding "Title XIX" was read. Mr. Riccio will be the guest speaker at the regular meeting scheduled for January 1967.

New Business — The suggestion that the Medical Association combine with the Woman's Auxiliary to the Pawtucket Medical Association for the December meeting was thoroughly discussed. By voice votes, the Society approved such a meeting. Dr. Paul Metcalf, who is Chairman of the Liaison Committee for the Woman's Auxiliary, will be the Chairman of the event. The details of this will be determined by Dr. Metcalf and the representatives of the Auxiliary.

New Business — The following physicians were elected to membership in the Pawtucket Medical Association by unanimous ballot: Dr. Neil G. Diorio, Dr. Sanford Reitman and Dr. Juan N. Medina.

There being no further business, this portion of the meeting was adjourned at 9:15 p.m.

Mr. Francis R. Dietz, Executive Administrator of the Pawtucket Memorial Hospital, was the invited speaker for the evening. His topic was "Medical Education in a Community Hospital." Mr. Dietz, in a very impressive dissertation, discussed the aspects relating to Medical Education, the planning and implementation of the educational programs and the inter-relationship of these in the quality of the community hospital. Following this discussion, a general discussion was held, comments were made by former and present Chiefs of services at Memorial Hospital, namely, Dr. Orland Smith, Dr. Joseph Doll and Dr. Earl Mara.

The meeting concluded at 10:30 p.m.

Respectfully submitted,

PAUL J. M. HEALEY, M.D.

Secretary

WOONSOCKET DISTRICT MEDICAL SOCIETY

A special meeting of the society was called to order at 9:00 p.m. on Friday, November 25, 1966. It was held in the meeting hall at Woonsocket Hospital. Present were approximately thirty doctors and twenty doctors' secretaries.

The purpose of the meeting was to hear Mr. Augustine W. Riccio, Director of the State Department of Social Welfare, and Joseph Pesare, M.D., director of that department's medical services. Their subject was the interrelationship and integration of various state and federally supported programs of financial aid to the sick.

The meeting terminated at 10:30 p.m.

Respectfully submitted,

J. GERALD LAMOUREUX, M.D.

Secretary

KENT COUNTY MEDICAL SOCIETY

The annual meeting of the Kent County Medical Society was called to order at 6:30 p.m., Thursday, December 1, 1966 at the Varnum Armory in East Greenwich. There were approximately 61 members in attendance.

The following officers were elected by the Nominating Committee:

President, Frank A. Racioppi, M.D.

Secretary, John A. Ferris, M.D.

Vice President, Donald K. O'Hanian, M.D.

Treasurer, George B. Farrell, M.D.

Delegates to the R.I. Medical Society:

Joseph T. Barrett, M.D.

Joseph E. Wittig, M.D.

H. Gerald Rock, M.D.

John M. Vesey, M.D.

Trustees:

Robert F. Corrente, M.D. — 1967

John M. Vesey, M.D. — 1968

Councillor, Paul E. Barber, M.D.

Alternate, William E. McKenney, M.D.

Board of Censors:

Richard R. Dyer, M.D. — 1967

William F. Garrahan, M.D. — 1968

Richard J. Kraemer, M.D. — 1969

The application of Sancho C. Anenias, M.D. was read and approved for membership in the Kent County Medical Society.

It was voted to contribute \$100.00 to the Kent County Memorial Hospital Endowment Fund in memory of Dr. Charles Phillips and \$100.00 in memory of Dr. Edward Kostyla.

The meeting adjourned at 8 p.m.

DORSEY

winter 1966

Season

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this issue: the nose as a shock organ

the nose as a shock organ

by Charles J. Shagoury, M.D., Chelmsford, Massachusetts

"Is it a cold, hay fever, or has he been reprimanded by his boss?" Occasionally, you will ask yourself this question when confronted by a patient with abrupt onset of rhinorrhea, nasal obstruction, and sneezing. Usually the history will elucidate the problem, but examination of the nose will often provide valuable clues to the correct diagnosis.

The nose is a shock organ in a double sense. First, it is in the nose that the confrontation takes place with the surrounding atmosphere. For twenty-four hours a day, the nose must meet the varying challenges of the inspired air, containing perhaps noxious chemicals, dust, dirt, bacteria, viruses, fungi, and industrial pollutants of all kinds, and render it clean, virtually sterile, and fit for the sensitive alveoli of the lungs. Whatever the temperature or humidity of the atmosphere, the nose must transmit it to the lungs at approximately 98°F, and with a humidity of approximately 40%.¹

Second, in particularly susceptible patients, the nose acts as a shock organ in a manner totally unrelated to its normal function. Persons with hay fever respond to ordinarily harmless materials by extreme nasal congestion, with marked rhinorrhea and violent spasms of sneezing. In some patients, exposure to threatening or disagreeable agents, or situations involving mental conflict may result in a reaction which is exclusively nasal, with swelling of the turbinates, and marked hypersecretion.²

Nasal symptoms usually result when the nose seeks to perform its function of getting rid of noxious and dangerous elements in the atmosphere, and prevent their admission to the trachea and lungs. Small particles are removed by the mucous coating which blankets the nasal passages. This mucous blanket contains a bacteriostatic agent, lysozyme, which destroys most air-borne bacteria.³ The mucinous content renders the surface sticky, causing dusts and small particles to adhere. It has been postulated that this process is rendered more effective through adsorption because of a surface electrical charge on the nasal mucosa.⁴ The cilia then sweep the particu-



late matter to the pharynx. The nose can prevent entrance into the lungs of particles as small as three microns in diameter, but smaller particles elude the nasal barrier. Most bacteria causing respiratory infections are one to three microns in diameter, but since they usually are inhaled in clumps, they are efficiently removed as a rule. Viruses, which are of the order of 1/1000 of this size, are less efficiently dealt with, unless they occur in very large aggregates.⁵

The nose will react in a more or less similar manner, whatever the nature of the offending agent, whether it be an irritant chemical, virus, pollen, or distasteful emotional situation. In acute coryza, the most characteristic sign is a profuse watery discharge. The volume of secretion may rise from practically nothing to nearly 60cc in twenty-four hours.⁶ The mucous membrane is reddened and engorged, while the turbinates are markedly swollen. After the first day or two, the secretion becomes thicker, yellowish, and more difficult to expel. The surface cells are largely destroyed, contributing to the copious discharge, which now also contains numerous inflammatory cells which have migrated to the area. Gradually, over a period of a few days, or a week, the flood abates, the swelling and redness subside, and the nasal epithelium resumes a healthy appearance.

Repeated attacks of rhinitis, particularly if there is an underlying element of obstruction, may result in chronic rhinitis. The mucous membrane is constantly swollen and reddened. Sticky, mucopurulent secretions are a continuous feature, and the glandular elements are hypertrophied. Commonly, the mucosal surface takes on an irregular, rounded "mulberry" appearance, and nasal passages are occluded by the swollen turbinates and redundant mucosa.

While all of us are susceptible to colds, the victim of hay fever, or allergic rhinitis, displays a marked nasal reaction to materials in the air which leave his associates unaffected. In such a patient, the nasal mucosa has become an allergic "shock" organ. Contact with the nasal allergen causes local release of histamine, with vasodilatation, increased vascular permeability, and severe nasal congestion, similar to the "wheal" and "flare" reactions in the skin, when the epidermis is the allergic shock organ. While we eagerly await the coming of spring, the hay fever sufferer dreads the blooming season, whose invisible pollens are poisons to his sensitive nose. His neighbor's cat or dog may provoke paroxysms of uncontrollable sneezing. In some cases a specific allergen is not identified, but the triad of rhinorrhea, nasal obstruction, and sneezing is present.⁷ The nose in these cases shows a pale, boggy, edematous mucosa, with a thin mucoid secretion. The mucous membrane shows extreme retractility to 1% cocaine or ephedrine. If the patient has medicated himself prior to examination, the nasal passages may appear abnormally patent, or show exaggerated congestion due to rebound reaction. The secretion may show a large number of eosinophils particularly after an attack of sneezing or rhinorrhea. Touching the mucosal surface, especially of the inferior turbinate, leaves an indentation, showing that the swelling is due to stasis and edema, rather than actual hyperplasia of the mucous membrane as in chronic hypertrophic rhinitis. Though the pale swollen mucosa is the hallmark of allergic rhinitis, as usually seen by the physician, exposure of allergic subjects to their known allergens results in a brief hyperemic phase, followed by pallor and edema.⁸

In the later stages of allergic rhinitis, the chronic edema of the mucous membrane results in the formation of polyps, clusters of grape-like masses hanging from the roof of the nose, with a pale glistening surface, contributing significantly to the sense of nasal obstruction and oppression.

A large group of patients show symptoms of nasal congestion when confronted by adverse life situations.⁹ In these unfortunate persons, anxiety, frustration, and resentment are often accompanied by a runny nose and nasal obstruction. Lacrimation adds to the nasal stuffiness. This autonomic response, mediated by the parasympathetic nervous system, may be part of a general parasympathetic reaction, or may possibly represent in part, a symbolic effort to wash out and crowd out the offending situation.

Nasal congestion may also occur in some patients at times of sexual stimulation, and in women during menstruation and pregnancy, even to the point of epistaxis.¹⁰ The relationship is obscure; castration results in atrophy of the nasal glands, and their action is inhibited by the hormones of the hypophysis and the thyroid.¹¹ The nose may be the shock organ in drug therapy. The nose may also bear the brunt of industrial stress, in those who work in a hot dry atmosphere, or those exposed to acid fumes, or irritating dusts. As the air in our cities is increasingly polluted by exhaust fumes, and industrial irritants, whole urban populations may suffer from chronic nasal and respiratory symptoms.

Of course, nasal reactions are not just infectious, or allergic, or emotional. Particularly in the chronic sufferers, there is an interdependence of all three. Death of a relative, or other psychic shock can pre-

(concluded on following page)

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Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. **Precautions:** The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

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precipitate an attack of rhinorrhea in hay fever sufferers.¹² Others develop attacks of vasomotor rhinitis following change in temperature, chilling, or exposure to the sun, or simply warm bedclothes.



The complex interplay of allergy and infection is largely unclear. Allergy to the viruses and bacteria which cause infection has been postulated, but is difficult to demonstrate. The swollen obstructed allergic nose is more susceptible to infection. At the same time, infection often precedes or precipitates an allergic attack. Exposure of a susceptible patient to an allergen can activate latent virus organisms leading to infection.¹³ This "jolt" reaction represents a summation of an allergen and a virus leading to symptoms in the nose as a shock organ, which either could have produced alone. In childhood, repeated attacks of bronchitis and colds may be inflammatory reactions to an allergen, or precipitated by exposure to an allergen. These children may later develop typical allergic rhinitis. On the other hand, children with typical allergic histories, eczema, asthma, and allergic familial backgrounds, may later develop typical infectious rhinopathies. Skin tests in such patients are usually positive.

Nasal reactions are part of the systemic response of the patient to an unwelcome stimulus. In cases of respiratory infection and exposure to atmospheric irritants, the reactions are useful, and to some extent desirable. They are usually self-limited, disappearing within a few days, or upon removal of the provoking agent. Here the distressing symptoms can be ameliorated with appropriate decongestant agents, and, in the case of severe or complicated respiratory infections, antibiotics may be given, with reasonable confidence of a cure. On the other hand, when nasal actions are the peculiar response of an individual to an allergen, or to an undesirable situation, they serve no useful purpose. The nose here is a shock organ in a stressful situation, but can furnish no response of value. It merely causes the patient symptoms which add to his problems. In these cases,

symptomatic treatment is of great benefit, but often the underlying faulty pattern of response cannot be altered. Such a patient may literally be considered to be paying his way in life "through the nose."

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Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. **Precautions:** Patient should not drive a car or operate dangerous machinery if drowsiness occurs. Except under professional care, do not give to patients under 12 yrs. or those who have persistent cough, high fever, heart or thyroid disease, hypertension or diabetes or use for more than 10 days.

DERMAQUIZ

by FRANCESCO RONCHESE, M.D.



A thick, leathery, smooth area on the palmar aspect of the left hand near the wrist, in a healthy 9 year old boy. Compare with normal right palm. It is an injury, but not from a cut, a fracture, not from pathogenic organisms penetrating the skin, not from a systemic disease.

For diagnosis turn to page 61.

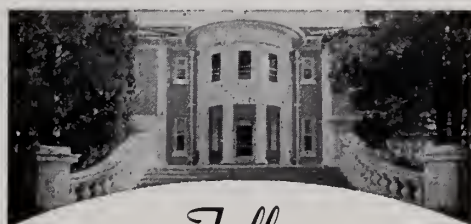
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Brown Alumni Monthly, April 1965.



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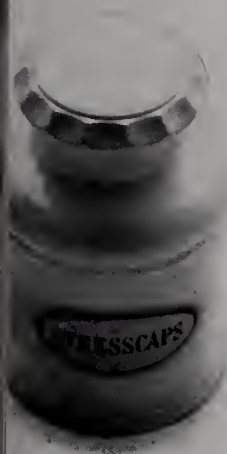
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 Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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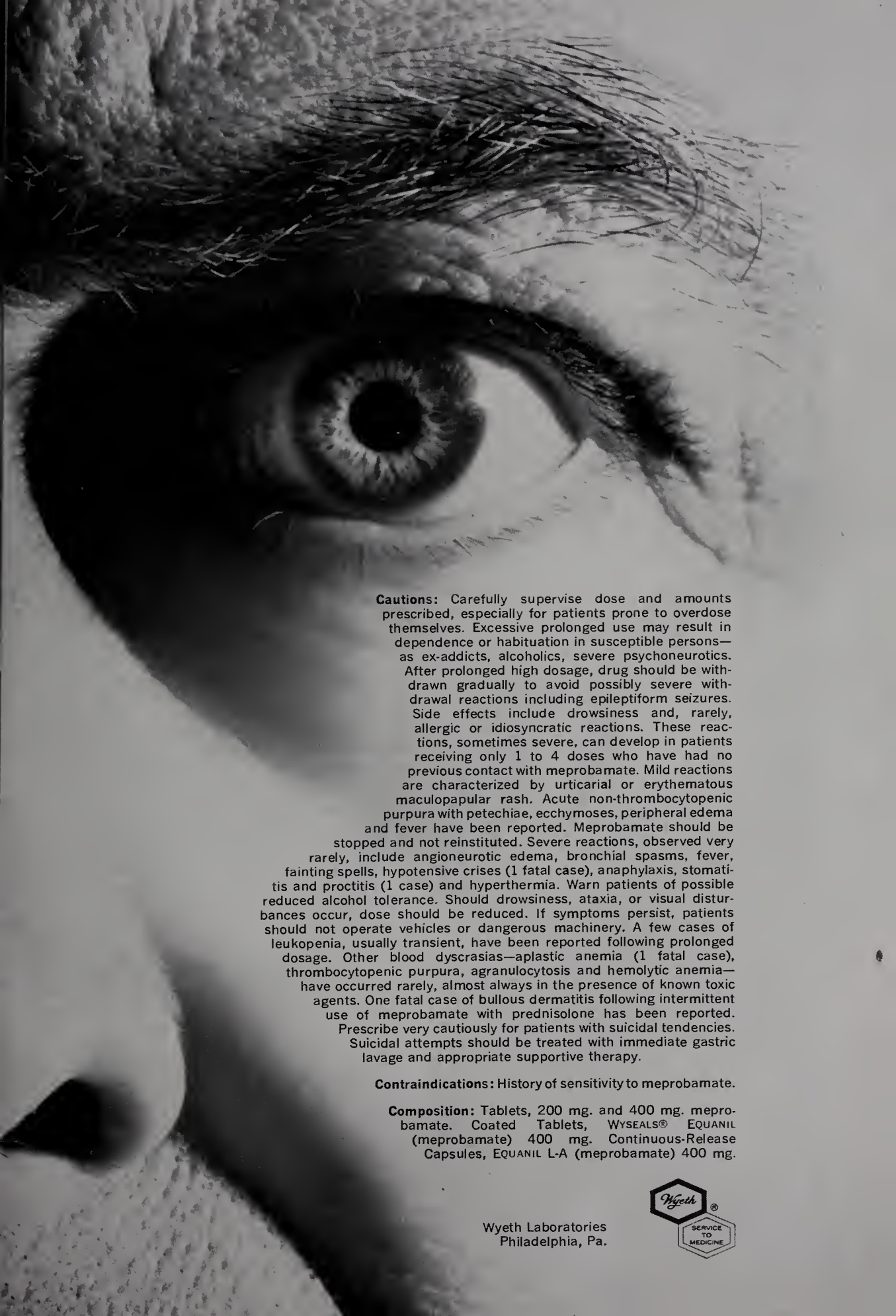


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3 a.m.

**Sleep-interfering
anxiety and tension
can usually be relieved
with
EQUANIL[®]
(meprobamate) Wyeth**



Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

Wyeth Laboratories
Philadelphia, Pa.



BOOK REVIEWS

HALL OF MIRRORS by John Rowan Wilson.

Doubleday & Company, Inc., New York, 1966

John Rowan Wilson, British surgeon and novelist, speaks knowingly of the current drive for power between the Medical Establishment and the new breed of government or university-fostered Medical Scientist. The issues are as clearly delineated as is humanly possible; the strengths of both are clearly portrayed, and then given shadow and depth by an equally clearcut portrayal of their weaknesses. The argument of the novel is very simple. Sir Thomas Gilling, private practitioner and surgeon to the Queen, is accused of failing to use up-to-date methods, in this case the computer, to diagnose an obscure illness which resulted in the death of a very important British politician. This accusation was by David Line, an aggressive publicity-seeking, above-average young surgeon who had done well in the administrative complex of the National Health Service, and in accordance with Parkinson's Law was anxious to build his own department and service in one of the better London hospitals. Unethically, using a willing press as an ally, Line claimed that the computer had given the correct diagnosis, which was tantamount to saying that failure to use the computer by Sir Thomas Gilling, at Professor Line's invitation, was negligence. The accusation was sufficiently severe to warrant a civil libel suit. The Queen's surgeon won when it was admitted finally at the trial that the computer was right only because additional information had been fed into it from the autopsy report. The drive to power and the dishonesty and questionable ethics that such may bring out is exposed convincingly. The Establishment, however, is equally exposed in all its weaknesses and foibles.

The ingredients of *HALL OF MIRRORS* are those similarly found in C. P. Snow's novels, and the pot rather stirred and brewed in the same manner. There is a striking similarity to Snow's *THE AFFAIR*. In both there are scientists, questions of integrity, and the individual against the Establishment; characters are well delineated in typical, easily-recognized, stereotyped people. It well may be that, in a country such as England with a certain amount of class consciousness and typing, people may more clearly be carved and fall into groups than is customary with us. With Snow in *THE AFFAIR*, it was the Scientists versus the

Masters; in Wilson's *HALL OF MIRRORS* it is the Doctor against the Royal Colleges.

The resolution of the plot reminds one of a famous novel by Faulkner who purported to show that certain people like David Line, M.D. always land on their feet after having sacrificed everyone — in Line's case his wife, his mistress, and his young assistants. Professionally and personally with his unscrupulousness Line lands on his feet, and John Rowan Wilson leaves no doubt in anyone's mind that he is free to repeat the whole business in another variant in another time and another place.

A superb review of this book with perhaps the finest editorial comment current, touching upon the morality and destiny of England — and thus indirectly reflecting on our own — appears in the *New England Journal of Medicine* for October 20, 1966, under the title "Age of Confusion." Both the book and editorial are worth reading and the provocative thinking that will follow.

ROBERT V. LEWIS, M.D.

RADIOLOGIC DIAGNOSIS IN INFANTS AND CHILDREN by Armand E. Brodeur, M.D. | The C. V. Mosby Company, Saint Louis, 1965. \$26.50

Any text on this sub-specialty of Radiology must be compared with the original one of Dr. John Caffey, the best known Pediatric Radiologist. In this comparison Dr. Brodeur emerges rather well.

No attempt is made to exhaust all subjects. Rather, the author stresses the areas in which his experience has made him more knowing. Particularly, one would mention the sections on the pleura and the urinary system.

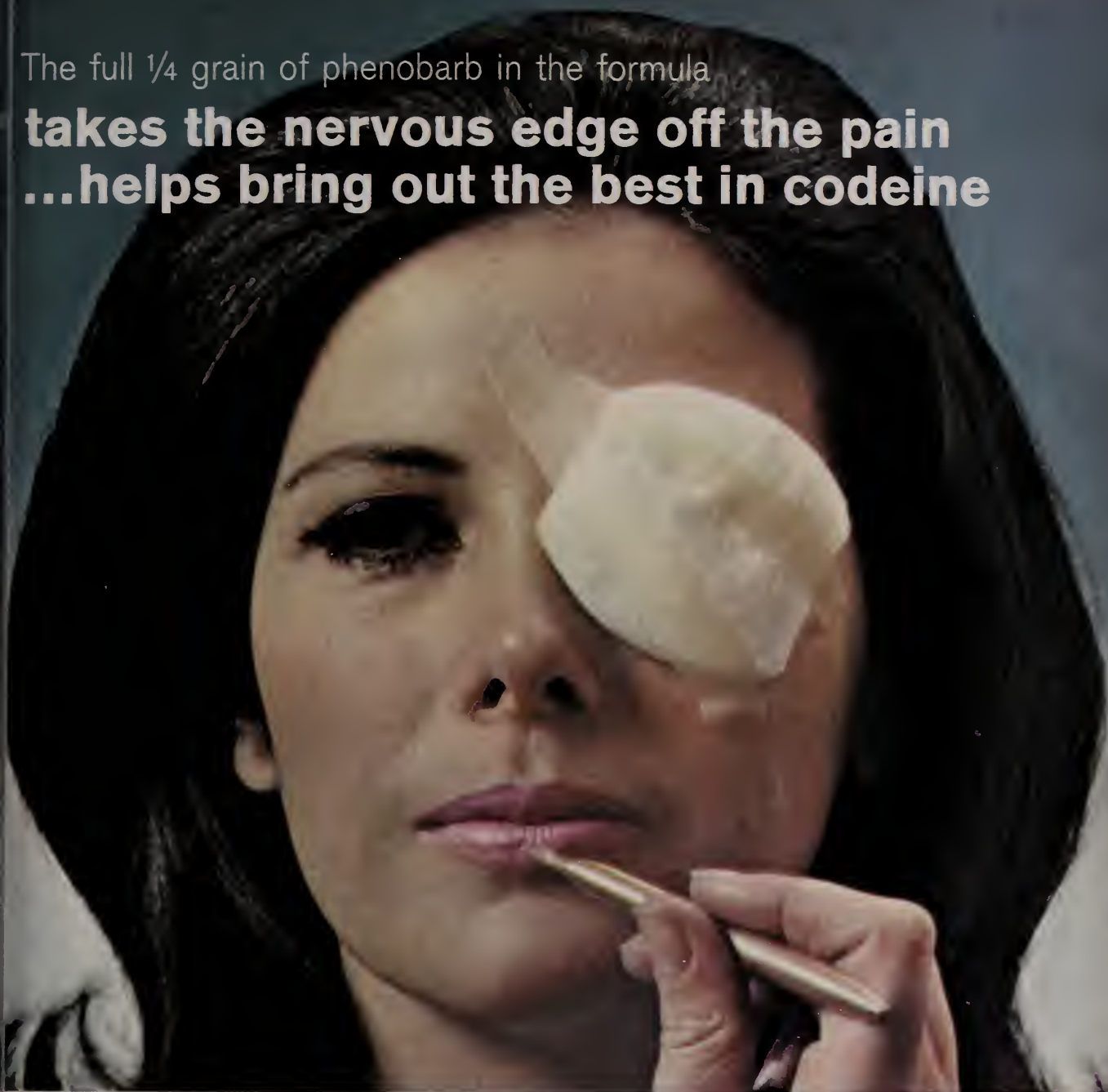
His discussion of pleural effusions, wherein he divides localized pleural effusions into dependent, loculated and subpulmonary, is quite clear and concise. The failure of the diaphragm to complete its continuous curve in a subpulmonary effusion is a noteworthy observation.

Under the urinary system, the description of technique and results of cystourethrography were of considerable interest to this reader. Obviously meticulous attention to detail is required to prevent repeated exposure of the child. Intimate acquaintance with the normal pediatric anatomy of this area is essential to facilitate accurate interpretation.

Also quite worthy of comment are the reproduc-

(Continued on Page 17)

The full 1/4 grain of phenobarb in the formula
takes the nervous edge off the pain
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analgesic that **calms**
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Each capsule contains:

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1/2 gr. (No. 3), 1 gr. (No. 4)
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Contraindications: Hypersensitivity to any ingredient.

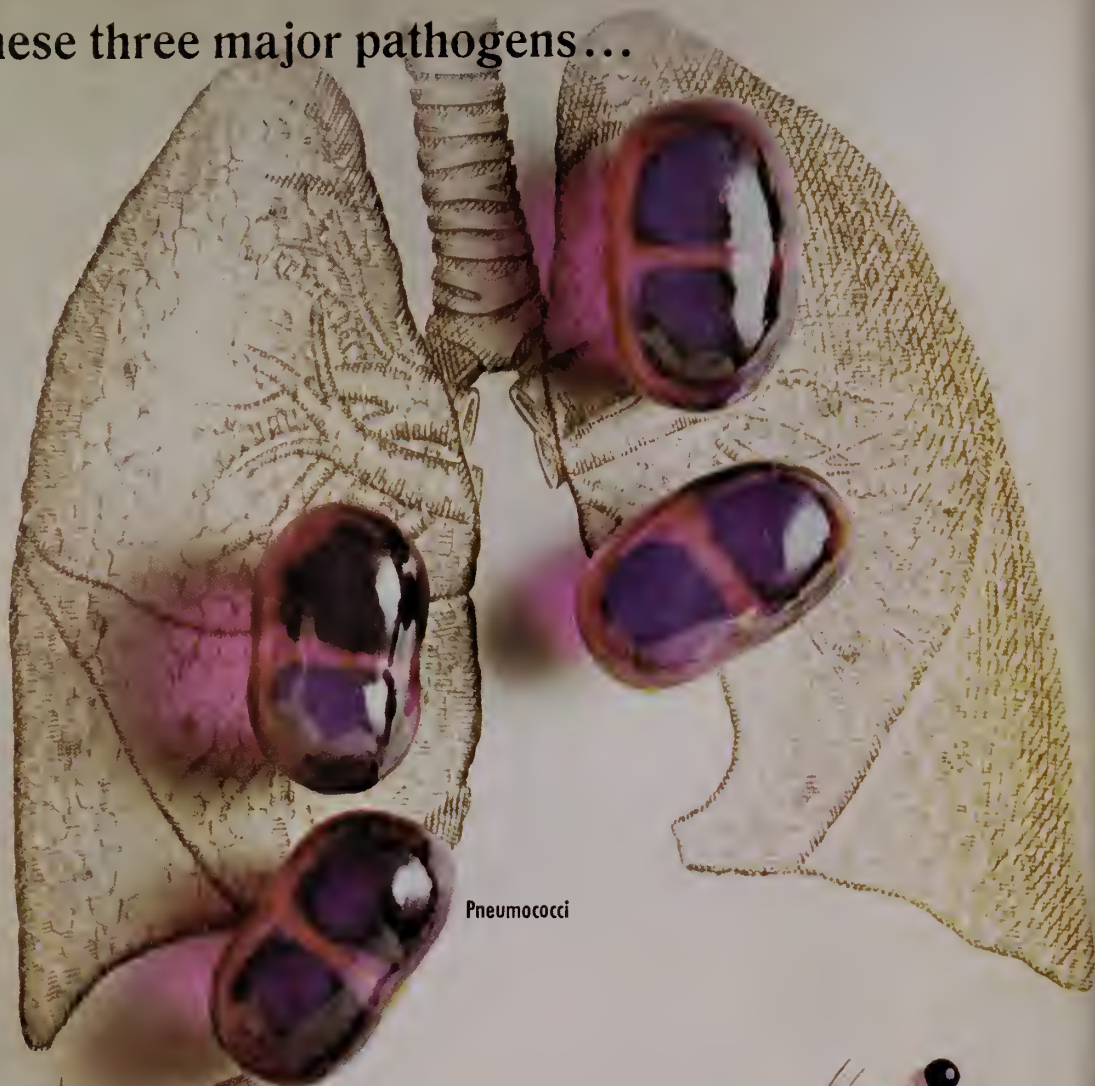
Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon — nausea, constipation, and drowsiness have been reported.

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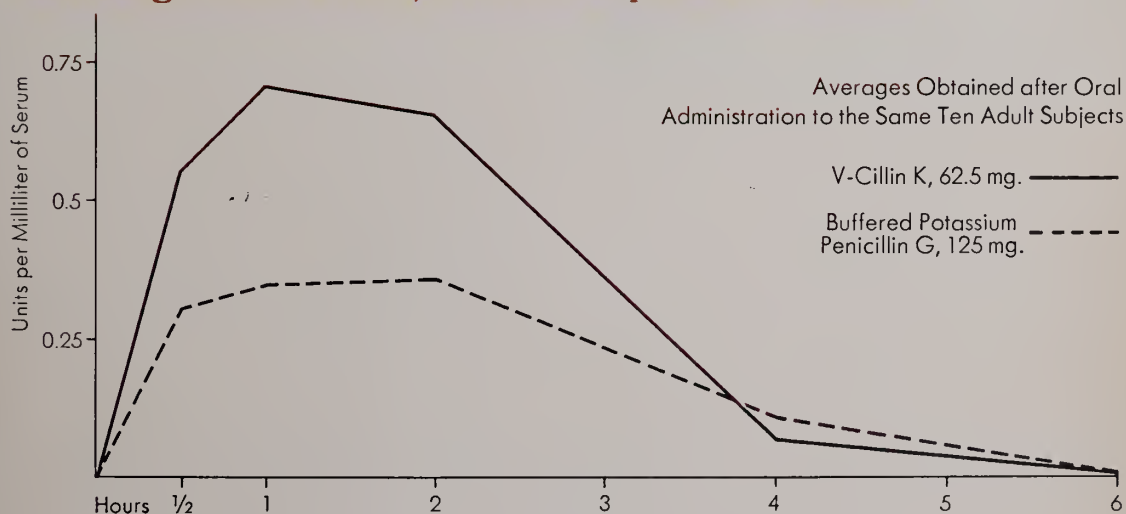
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Antibiotic	Staph. Aureus (Penicillin-Sensitive)		Streptococcus, Group A		Diplococcus Pneumoniae	
	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Claxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K[®]  700157
Potassium Phenoxymethyl Penicillin

(See next page for prescribing information)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxy-methyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxy-methyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in

those who have previously demonstrated sensitivity to penicillin. If hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin allergy may occur. When penicillin is administered, measures for treating anaphylaxis should be readily available. Those include epinephrine, oxygen, and pressor drugs for relief of immediate allergic manifestations as well as antihistamines and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the overgrowth of antibiotic-resistant organisms; in such a case, antibiotic administration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units once or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderately severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), in bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (800,000 units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) per 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

BOOK REVIEWS

(Continued from Page 16)

tions. On the whole, they are superior and in some instances must rival the original film from which they were taken. The urologic films are an excellent example when the difficulties of injection and restraint in this age group are taken into consideration.

Perhaps two minor criticisms might be noted. Following an excellent discussion of the radiographic findings in intussusception, the author discusses the use of a barium enema not only for purposes of diagnosis but to make an attempt at reduction in all cases. This comprehensive attempt at reduction would certainly not meet with universal acceptance.

My notes indicate that in Fig. 10-14 under Heart and great vessels, Panels A and B are transposed.

These are certainly inferior annoyances that are readily overlooked in the evaluation of a superior addition to the radiologic literature.

JOHN M. VESEY, M.D.

BUSINESS MANAGEMENT OF A MEDICAL PRACTICE by Bernard D. Hirsch, LL.B. The C. V. Mosby Company, Saint Louis, 1964. \$7.75

This book is written by the director of the law department of the American Medical Association for the physician who wants information regarding the legal aspects and other details of the business management of medical practice.

The author discusses in a lucid style such subjects as office sharing, employing an associate, partnerships, hospital contracts with specialists, renting an office, and selling a practice.

There is a long chapter on the federal income tax, discussing in much detail many of the complicated aspects and ramifications of this important matter, including exemptions, deductions, professional income and expenses, and depreciation.

Of great value is a chapter on buying on credit explaining how to calculate the actual cost of interest and carrying charges. Valuable legal advice regarding the fine points of wills, trusts, and estates is included in another long and detailed chapter.

With so little attention given to the business aspects of setting up and maintaining a practice in the average medical school curriculum, this book fills an important need.

HENRY F. IZEMAN, M.D.

RESUSCITATION OF THE NEWBORN INFANT AND RELATED EMERGENCY PROCEDURES. Principles and Practice. Edited by Harold Abramson, M.D. Second Edition. The C. V. Mosby Company, Saint Louis, 1966. \$16.50

The second edition of this excellent compendium by some 30 internationally recognized authorities in the fields of clinical and investigative pediatrics, especially as applied to the neo-natal period, is without a peer both in its content and balanced interpretation. Several new chapters added in this edition have brought it up to date with recent discoveries and theories in the fields of obstetrics and pediatrics.

The chapters on surgical emergencies in respiratory difficulties of the newborn, fluid and electrolyte therapy in the newborn, and laboratory diagnosis are up to date and full of precise data for the guidance of the physician in charge of a newborn nursery or intensive care unit. Finally the chapter on mechanical respirators and resuscitators are invaluable both for reference and every-day use in practice and teaching.

The appendix and bibliography plus the U.S. Public Health Service Publication No. 1432 would give any investigator or student a background and solid data on what is already known and also on the tremendously large area where information is still to be sought. This volume should certainly be in every obstetrician's, pediatrician's, and hospital library.

MAURICE ADELMAN, M.D.

MODERN HOME REMEDIES AND HOW TO USE THEM by Morris Fishbein, M.D. Doubleday & Company, Inc., New York, 1966. \$3.95

A practical book giving sound advice on how to use home remedies, their limitations, how to keep them safely in the house, how to date them, label them, discard them. How not to worry when reading a thermometer, how to handle athlete's foot, how to take vitamins, and many more good advices.

The book is written for the layman and should become popular in spite of the price.

F. RONCHESE, M.D.

SURGERY IN WORLD WAR II. THORACIC SURGERY, Volume II. Edited by Frank B. Berry, M.D. Office of the Surgeon General, Department of the Army, Washington, D.C., 1965. \$7.25

This Second Volume is based on the clinical and technical experience of thoracic surgical problems during World War II. It is prepared by the Historical Unit, U.S. Army Medical Service, and published under the direction of the Surgeon General, U.S. Army. The Authors include: Brian B. Blades, M.D., Lyman A. Brewer, III, M.D., Thomas H. Burford, M.D., B. Noland Carter, M.D., Michael E. DeBaakey, M.D., and Dwight E. Harken, M.D.

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thoracic wounds caused by the missiles of modern warfare and with the management of their complications. It is divided into three parts. The first part is devoted to wounds of the chest wall, lungs, heart, and other mediastinal structures. In the second part, complications and sequelae of the wounds of the chest, such as wet lung, hemothorax, empyema, and foreign bodies, are discussed. The last part of the book is titled: "Observations on Wounds and Diseases of the Chest in the Zone of Interior." The brilliant results achieved in these potentially dangerous complications of chest trauma, as well as in foreign bodies retained in the lung, heart, and great vessels, are discussed in the final chapter.

This is an excellent and important book, well-written, and easy to read. It is based on a broad experience with thoracic trauma in World War II. Needless to say the experience gained with these thoracic surgical patients during World War II helped to lay the foundation for the almost advances in this field.

JOHN YASHER, M.D.

ATLAS OF HERNIA REPAIR by Carl H. Calman, M.D. The C. V. Mosby Company, Saint Louis, 1966. \$16.75

The scope of this book is quite complete. The essential anatomical features and an adequate method of repair are described for each type of hernia including such rare types as lumbar and sciatic hernias.

Esophageal and diaphragmatic hernias are only briefly discussed and not covered in depth. It is a pleasant review and might be recommended for interns and residents.

CLARENCE H. SODERBERG, JR., M.D.

DID YOU KNOW?

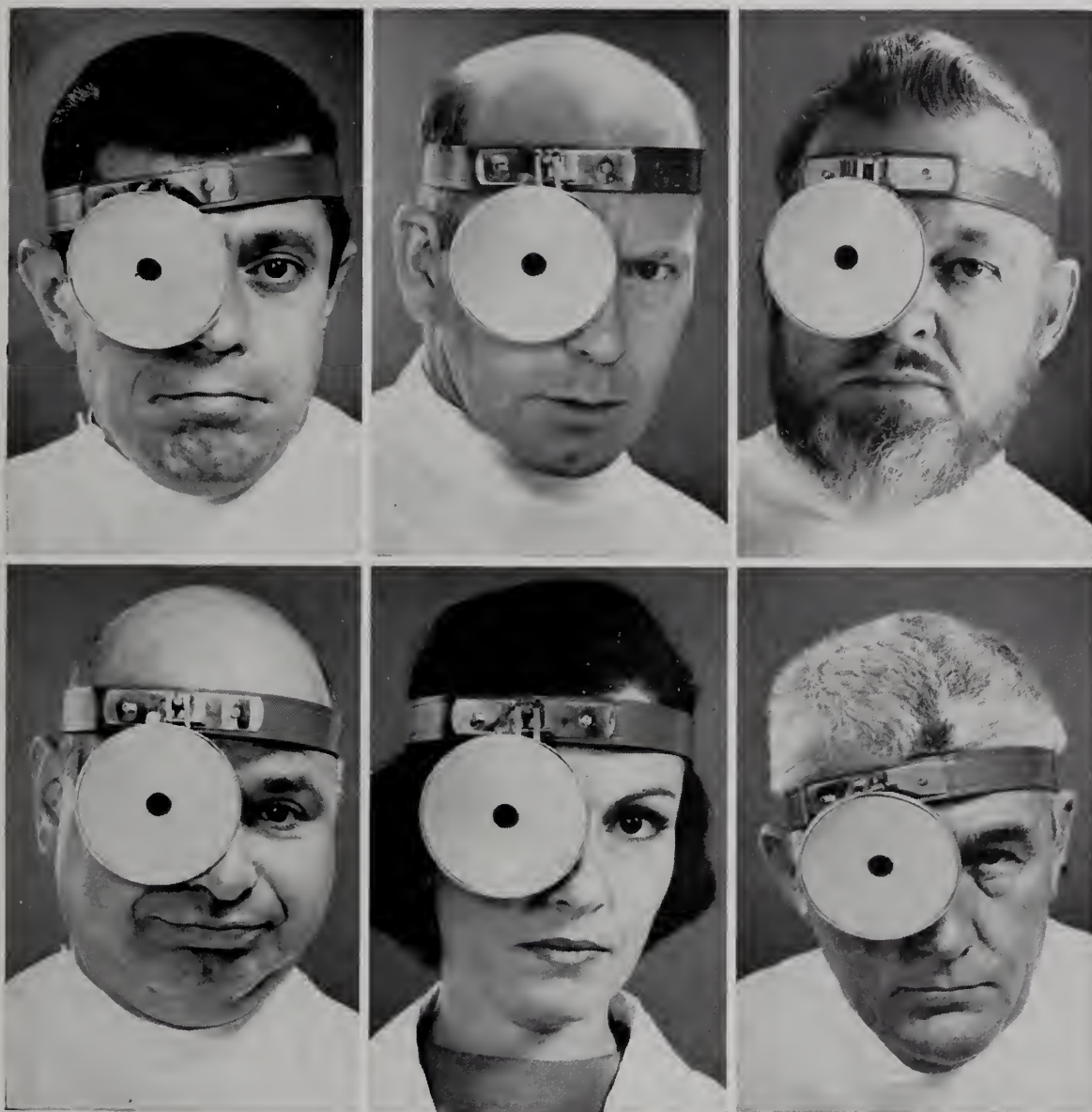
- Nearly 51 million wage earners had disability income insurance in 1965.
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ONE SENTENCE ESSAY

God's most notable contribution to political science . . . is the mortality of politicians. . . .

. . . John Kenneth Galbraith in essay titled "How to Get Rid of an Old Foreign Policy" Prov. Sun. Journal, Dec. 11, 1966



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

Wrong! But that's no more preposterous than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

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tion, which make the manufacture of Bayer® Aspirin so different.

These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to stay strong and gentle until they are taken.

So next time you hear someone say that *all* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.





Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available: epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; anti-

histamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β -hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN•VEE® K**
(potassium phenoxymethyl penicillin)



Look how many ways

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brand of
chlorpromazine
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Cancer patients	●	●	●
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Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
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Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. **Contraindications:** Comatose states or the presence of large amounts of C.N.S. depressants. **Precautions:** Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. **Side Effects:** Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with

I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

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pH—values are read numerically in the essential range of pH 5 to pH 9.

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Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

Ketones—detects ketone bodies in urine—both acetoacetic acid and acetone. Reacts with as little as 5 to 10 mg. % of acetoacetic acid.

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Now a Clear Reagent Strip of Firm Construction

...facilitates handling during testing procedure. Excellent color contrast made possible by the clear plastic strip, together with the clearly defined color charts provided, permits precise, reproducible colorimetric readings in all 5 test areas. A more definitive interpretation of uro-analytical facts is made possible.

Available: LABSTIX Reagent Strips, bottles of 100 (color charts are supplied with each bottle).



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'Empirin'® Compound with Codeine Phosphate gr. ½ No. 3

Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.



Keeps the Promise of Pain Relief

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

**It's easy
for children to get
otitis media...**



and Gantanol Suspension is a good way to help them get well

proven effectiveness against major U.R.I. pathogens including beta-hemolytic strep

With Gantanol (sulfamethoxazole), bacteriologic conversion rates for beta-hemolytic streptococci are comparable to those generally seen with penicillin, and apparently superior to those cited in the literature for erythromycin and the broad-spectrum antibiotics.^{1,2} With conversion rates ranging from a high of 96% in 229 patients² and 98% in 96 cases³ to 65% in 105 cases,^{5,6} Gantanol (sulfamethoxazole) Suspension is an effective alternative therapy in patients sensitive to penicillin, the drug of choice in known beta-hemolytic streptococcal infections.

In addition to this effectiveness against beta-hemolytic streptococci,¹⁻⁹ bacteriologic conversion rates have averaged 69% for *D. pneumoniae* (103 of 150 patients),^{3,6,7} 78% for *H. influenzae* (42 of 54 patients),^{3,4,7} and 67% for *Staph. aureus* (76 of 113 patients).^{3,4,6,7} It is this wide spectrum of activity which makes Gantanol (sulfamethoxazole) Suspension a good choice in acute pharyngitis, tonsillitis and otitis media.

β-hemolytic strep



Staph. aureus



D. pneumoniae



H. influenzae



therapy generally uncomplicated by side effects

Over 8 out of 10 U.R.I. patients—87% of 2231 patients—showed an excellent to satisfactory clinical response to Gantanol (sulfamethoxazole).¹⁻¹³ Such favorable results are even more meaningful in view of the fact that only 1.1% of the more than 2000 cases cited discontinued therapy because of side effects. Of the total side effects reported (4.6%), most were mild and included rash, urticaria, itching, dizziness, headache, diarrhea, nausea and vomiting, shivering sensation, skin discoloration and crystalluria.¹⁻¹³

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic respiratory and urinary tract bacterial infections due to susceptible microorganisms. At present penicillin is considered the drug of choice in acute group A beta-hemolytic streptococcal infections; however, Gantanol (sulfamethoxazole) has shown an effectiveness approaching that of penicillin in a large number of patients. If employed in such infections, it is important that therapy be continued in the usual recommended dosage for a period of at least 10 days.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants or infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed. Data insufficient on prolonged or recurrent therapy in chronic renal diseases of children.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Following may occur: headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

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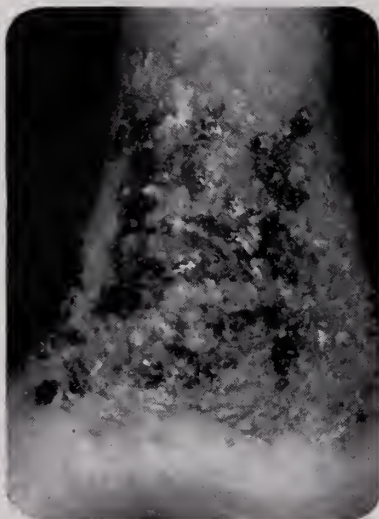
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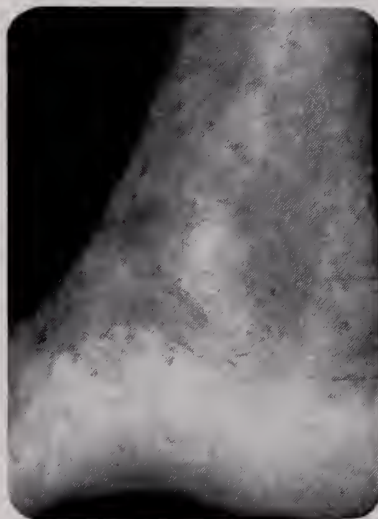


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CLINICAL AND EXPERIMENTAL EXPERIENCES WITH CUFFED TRACHEOSTOMY TUBES*

Extended Intermittent Positive Pressure Breathing Requires Tracheostomy and Cuffed Tracheostomy Tube

FRANCIS L. McNELIS, M.D.

The Author. *Francis L. McNelis, M.D., of Providence, Rhode Island. Surgeon-in-Chief, Department of Otolaryngology, Rhode Island Hospital, Providence, R. I.*

One of the most significant developments in the nineteen sixties has been the widespread acceptance of intermittent positive pressure breathing (IPPB) to assist or control respirations. Basically, this is a form of artificial respiration utilizing a closed system similar to that used by the anesthetist to ventilate his patient. Some of the more popular respirators or ventilators used today are the Bird, Emerson, Bennett, Air Shield, and Engstrom units. An Ambu® bag may be used in an emergency. To obtain the airway seal needed for such a closed system, a cuffed endotracheal tube or a cuffed tracheostomy tube is needed. Occasionally, IPPB may be administered by face mask, but the method is quite inefficient and not recommended. Therefore, even though a surgical wound is required, the insertion of a cuffed tracheostomy tube to obtain the airway seal is strongly advocated. The use of nasal or oral endotracheal tubes should be discouraged vigorously except as an emergency measure, and their use should not be continued for a period in excess of twenty-four hours. Reasons for this attitude are: 1) Inability adequately to remove secretions. 2) Building up of crusts about the open end, and 3) Unnecessary increase in the dead space. Further evidence of the deleterious effect of endotracheal tubes has been furnished by Way and Sooy¹ in their work with the monkey using oversized endotracheal tubes. Consistently, an ulceration was noted in the mucosa over the cricoid cartilage. It would appear that the firmness of the cartilage prevented the mucosa and submucosa from yielding to the pressure of the oversized tube and thus caused compression between the rigid structures. Whether necrosis of tissue resulted directly from pressure or from ischemia is still a matter of conjecture.

For the past three years it has been our prac-

tice to place a small cuff balloon about the metal Jackson tracheostomy tube, using an adapter of the Morch type to connect it to the ventilator. Complications have been reported,² but with an appropriate tracheostomy technique and aftercare plan they can be avoided. In this regard, we have found the following points to be of the utmost importance. A segment of trachea must be removed to produce a fenestra large enough to accommodate the bulk of the tube and its surrounding cuff without slippage on insertion or tearing. The tube should be of the largest caliber that can be accommodated (usually a No. 7 Jackson or larger). A properly fitting single-lumen cuff should be used since this is the only type which on inflation will bulge equally in all directions without causing pressure points. A short cuff should be used, as the usual endotracheal cuff is too long, increasing unduly the area of contact at the point of seal. Inflation of the cuff should be just to the point of seal at which the machine will function. It may be hazardous to over-inflate the cuff. Also, it our practice to deflate the cuff for about thirty seconds every hour, and this can be accomplished without any disturbance in the ventilatory effectiveness. Furthermore, the pressure point at the cricoid is eliminated when a cuffed tracheostomy tube instead of an oral or nasal endotracheal tube is inserted.

In 1965, 116 tracheostomies were performed at the Rhode Island Hospital; a cuffed tracheostomy tube was used in forty. There were no complications observed during hospitalization, nor to my knowledge have there been any late complications. Of the forty patients reported, twenty-eight died. Autopsy was performed in twelve. Tracheal changes were noted in only two. These were as follows: 1) In a sixty-two-year-old male who died of subdural hematoma following ten days of IPPB, there was mucosal erosion in the vicinity of the tracheostomy site; 2) In a fifty-three-year-old male with hypertensive cardiovascular disease, heart failure, and bronchopneumonia, who expired after two days of IPPB, the tracheal lining was found to be injected and moderately congested. The significance of these changes was somewhat

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lessened by an unexplained finding at autopsy in a tracheostomized patient who had not had an endotracheal cuff. This was a seventy-eight-year-old female who died of arteriosclerotic heart disease, respiratory alkalosis, and pulmonary emboli twenty-four hours after tracheostomy. At post mortem examination the tracheal mucosa contained scattered areas of hemorrhage, ecchymosis, and ulceration.

A study of late sequelae of tracheostomy was carried out by G. von Schulthess of Zurich, Switzerland.³ Histological preparations of the tracheal and bronchial walls in twenty-three patients who died at intervals of from two days to three years after tracheostomy or laryngectomy revealed a primary inflammatory and erosive change of the tracheobronchial wall which healed first with squamous epithelium. It was von Schulthess' impression that the bronchial tree tends to return to a normal state after tracheostomy and laryngectomy, especially if the tube is removed.

Despite this documentation, however, I was disturbed over the possibility of pressure necrosis. Therefore, as a test I performed tracheostomy on two forty pound mongrel dogs. The first had an over-inflated No. 7 tube in the trachea for 48 hours at which time he was found dead in his cage due to obstruction occurring at night when there was no attendant on duty. Upon autopsy, the dog's trachea was found to be normal, with no evidence of hyperemia at the site of the cuff in the trachea. In the second dog, because of this previous unfortunate experience, the cuff was over-inflated each morning and deflated at night for a period of six weeks. At the end of this time and on two occasions one month apart following this the dog was carefully examined by bronchoscopy. At the time of the second examination the tracheostomy fistula had closed, and there was no evidence of ulceration or stenosis at the site of balloon contact. Following this long service, the dog was rewarded by being made a household pet in the author's home and after two years has showed no symptomatic evidence of stenosis.

My original intention in this experiment had been first to produce a stenosis by abusive measures of over-inflation and trauma;⁴ and then to prove by gentle inflation and periodic decompressions that this could be avoided. However, I feel it more significant that a stenosis or other change could not be produced even with abusive treatment.

SUMMARY

I feel intermittent positive pressure breathing can be administered without tracheal complications when the basic fundamentals of proper tracheostomy and aftercare are observed. The best results are obtained with the largest tube that can be

accommodated. The use of an oral or intranasal endotracheal tube is to be condemned, except as an emergency measure until the proper tracheostomy can be performed.

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EDOLOGY

Tumors of the Jaw in Ghana

In 1901, in his book *Tropical Medicine*, Dr. Albert Cook first drew attention to the frequency with which tumors of the jaw occur among the Africans in Uganda, East Africa.

Tumors of the jaw also occur frequently among the African living in Ghana on the western part of the continent. Pathological material drawn from 7,945 histological and 1,159 postmortem examinations at the Korle Bu Hospital, Accra, yielded a total of 89 primary bone tumors among which tumors of the jaw amounted to 70, a ratio which is comparatively very high.

... Kovi, J., and Laing, W. N., *Cancer*, Sept., 1966

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ACUTE FULMINATING MONILIASIS

Predisposing Factors May Transform a Minor or Localized Infection Into a Serious Generalized Disease

MARIO TAMI, M.D.

The Author, Mario Tami, M.D., of Providence, R.I. Member, Active Staff, Department of Cardiology, Roger Williams General Hospital, Providence, R.I.

INTRODUCTION

The pathogenetic role of the *Candida* genus has been progressively upgraded during the last century or so. At first attributed only secondary importance as the cause of minor superficial infections (thrush), but commonly seen as an innocuous saprophyte, its importance in inducing diseases localized in internal organs was recognized later, while sporadic reports of systemic spread began to appear in the literature in the second half of the last century. Monilial septicemia is now a well recognized entity, but the fact that such infections may run a hyperacute or fulminating course deserves emphasis.

CASE REPORT

Present Illness: This 50-year-old white woman was admitted to Roger Williams General Hospital with a chief complaint of severe abdominal pain. She had been admitted three weeks previously for a vulval abscess which was incised and drained. At that time culture yielded hemolytic *Staphylococcus aureus*, coagulase positive. She was treated initially with 500 mg. of Mysteclin,[®] repeated in doses of 250 mg. four times daily for seven days. Since that time she had noted postprandial abdominal pain after every meal, usually preventing her from finishing her meals, occurring regardless of the nature of food. There was no vomiting. She had not consulted a physician. She had had diarrhea for two days, four days prior to admission, but no melena. For two days prior to admission she complained of a sore throat. Shortness of breath was mentioned by the family, but not by the patient. About that time she noted epigastric pain, intermittent and not severe. There were no associated symptoms, such as chills or nausea. A physician was not consulted until the day of admission, when the abdominal pain became very severe and the patient vomited a small amount of bright red blood. Some throat persisted until admission. Patient felt very thirsty and the day of admission, had not eaten, but had taken her regular dosage of insulin.

When seen in the emergency room, she complained of severe abdominal pain but was unable to give further details.

Past History: Diabetes mellitus had been present for eleven years; she had lately taken 25 units of NPH insulin daily.

Seven years prior to admission dilation and curettage had been performed and some surgical procedure on the uterus. The patient was known to take sleeping pills at home.

Family History: There was definite evidence of familial diabetes.

Physical Examination: The patient was in acute distress at the time of the examination, screaming with pain. Findings were otherwise within normal limits.

Laboratory Data: Initial white blood count was 21,000. Hematocrit 53 per cent. Differential white blood count revealed 8 lymphocytes, 4 monocytes, 86 segmented forms, and 2 bands. A later white blood count was 13,800, and hematocrit 49 per cent. At this time, the differential count revealed 20 lymphocytes, 3 monocytes, 72 segmented forms, and 5 bands. Fasting blood sugar on admission was 293 mg. per cent. After administration of intravenous fluid it rose to 328, then 446. Urinalysis yielded positive tests for sugar and acetone, traces of albumin, and bacteria. The vomitus obtained in the emergency room just prior to admission was positive for occult blood. Serum amylase was 105; blood urea nitrogen was 27 mg. per cent. Electrolytes were essentially normal except for a low sodium. Serum transaminase was also normal. Throat culture, reported after death, disclosed beta hemolytic *Streptococcus* and hemolytic *Staphylococcus aureus*, coagulase positive. Urine culture and blood cultures showed no growth.

Clinical Course: The patient was afebrile on admission. She was given 100 mg. of Demerol[®] because of the severe abdominal pain. A few hours later she gradually slipped into coma, from which she never recovered. No other sedation was given. The question of previous administration of sedatives or sleeping pills was raised, but later ruled out.

Intravenous fluids and insulin were administered. Although urinary sugar was 4 plus and urinary acetone was 4 plus; at this time, serum acetone study showed only a trace. This appeared to rule out diabetic coma. The abdomen at this time was soft and flat, and there were no clinical or x-ray findings suggestive of surgical disease. Flat x-ray plate of the abdomen and chest x-ray study were

(Continued on next page)

both within normal limits. The patient was in complete coma and exhibited total areflexia, except for corneal reflexes, which were present. The neck was not rigid; there was no Babinski sign. The pupils were moderately dilated and reacted poorly. There was no papilledema. A spinal tap was scheduled but could not be done due to the patient's rapid demise. An electrocardiogram taken immediately on admission disclosed only prominent P-waves in lead II, III and aVF, and rather tall T-waves in the precordial leads. There was, however, no evidence suggestive of an acute myocardial infarction, acute pulmonary pathology, or other acute processes.

The blood pressure, which was 120/70 on admission, started to fluctuate at this time and then dropped to low levels. The patient was transferred to the Intensive Care Unit. Frank shock eventually supervened; Levophed® was administered. This was increased progressively without obtaining a satisfactory response. The urinary output was 2050 ml. the first day and 265 ml. the second. Urinary sugar was 4 plus, and acetone a trace.

The temperature rose to 104°F. First generalized and then left-sided convulsions occurred. She expired shortly thereafter, forty-two hours after admission.

AUTOPSY FINDINGS

Positive findings were confined to the respiratory system and the gastrointestinal tract. The latter disclosed marked purplish discoloration of a 20 cm. segment of the proximal ileum, the lumen of which was filled with brownish purple material. The jejunum and the portion of the ileum proximal to this lesion were moderately distended. The superior mesenteric artery and veins were not grossly abnormal.

The lungs were quite heavy and hypocreptant. There was deep purplish discoloration which involved all areas, except the upper part of both upper lobes. On section, the affected lobes appeared deeply purplish with a background of green-



Fig. 1. Section of jejunum, showing extension of hemorrhagic lesion involving the entire thickness of the wall from mucosa to serosa.

ish tinge. An abundant amount of greyish fluid flowed out of both lungs. Small areas of consolidation were noted. The bronchi were markedly red. The pulmonary vessels were not remarkable.

The brain appeared grossly normal, with no signs of increased intracranial pressure or other visible pathology.

Microscopic examination of the affected segment of the small bowel showed considerable hemorrhage in the submucosa, splitting the muscular layer and extending into the subserosa (Fig. 1). Sections of the mucosa showed numerous bluish masses of entangled hyphae (Figs. 2 and 3). The vessels of the submucosa were dilated and engorged with blood which appeared hemolysed. No thrombosis was noted in the mesenteric vessels, and their walls were not remarkable.

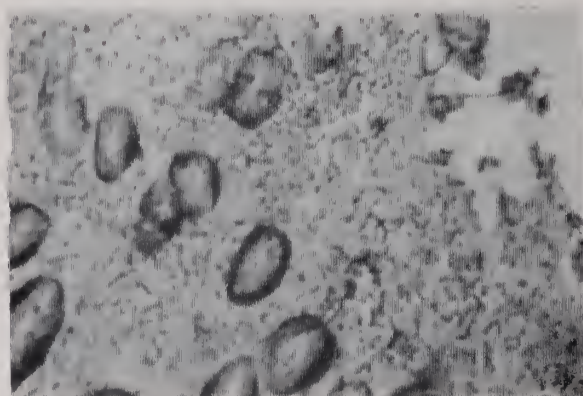


Fig. 2. PAS stain of mucosa of small bowel showing yeasts and mycelia of *Candida albicans*.

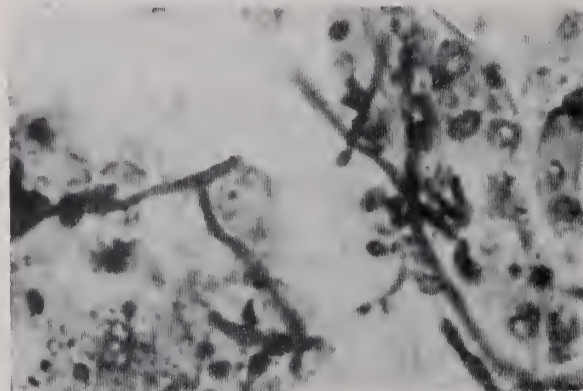


Fig. 3. Mycelia demonstrated in small bowel, oil immersion.

Sections of both right and left lungs showed extensive edema with an outpouring of fibrin into the alveoli, with occasional areas of neutrophilic infiltration (Fig. 4). In most other areas mononuclear cells predominated. Masses of tangled bluish septate hyphae and spores were noted in the areas of mononuclear reaction, while bacterial colonies were seen in areas of neutrophilic infiltration. The hyphae and chlamydospores of *Monilia albicans*

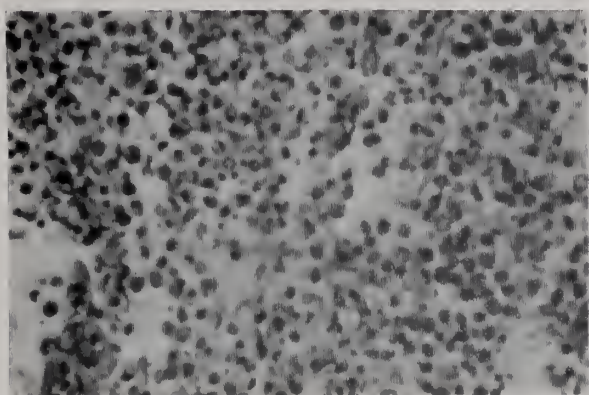


Fig. 4. Pneumonia, with histiocytic and mononuclear cell reaction.

were easily demonstrated. The periodic acid-Schiff (PAS) stains showed deeply pink branching hyphae and spores (Figs. 5 and 6).

The only lesions found in the central nervous system were in the cerebellum, which displayed striking changes and marked dropping out of the cells of the granular layer. The Purkinje cells appeared swollen with homogenizing changes in their cytoplasm.

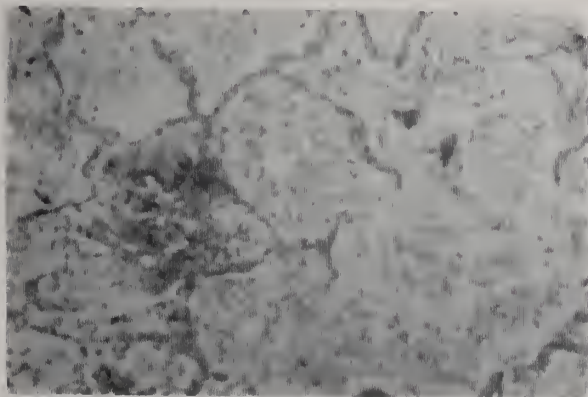


Fig. 5. Pneumonia, PAS stain, showing groups of monilia.

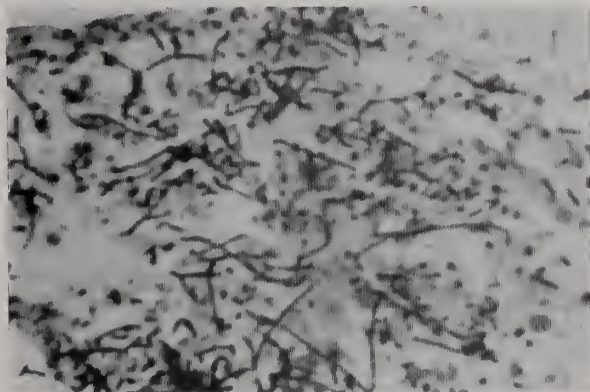


Fig. 6. Pneumonia, PAS stain, high power, showing hyphae and mycelia.

COMMENT

This case illustrates the possibility of an hyperacute or fulminating course in moniliasis. While the chest x-ray study on admission was entirely negative, upon death 42 hours later post mortem examination disclosed a massive pneumonia, characterized by monocellular reaction, with hypae and mycelia infiltrating the lung tissue.

The time of onset of the acute hemorrhagic necrotizing enteritis is more difficult to determine. Whether it corresponded to the three week history of postprandial pain is subject to speculation.

The patient was a known diabetic. An abscess of the vulva, incised and drained three weeks prior to admission, did not yield *Candida albicans*, although no Sabouraud implantation was done at that time. Similarly, blood cultures done at the onset of the last illness were sterile, although again a Sabouraud medium was not utilized.

This patient presented the complete tetralogy of monilial septicemia fever, obtunded sensorium, gastrointestinal bleeding and shock. This complex, however, is not pathognomonic of moniliasis.

It may be argued that, due to the fulminating course, specific antimonilial therapy (Amphotericin B) would not have changed the progress of the disease. However, awareness of the possibility of the diagnosis of moniliasis could alert the clinician in time to offer the patient the benefit of specific therapeutic support.

DISCUSSION

At one time *Candida albicans* was thought to be the only pathogenetic member of genus *Candida*. More recently other species of *Candida* have been isolated from a variety of lesions in man and attributed an etiological role. In particular, several instances of *Candida tropicalis* infections have been reported and, more rarely, *Candida pseudotropicalis*. However, of all the *Candidas* cultured from the gastrointestinal or vaginal tract in man, in the absence of clinical disease, about 15-25 per cent have been identified as *Candida albicans*. The organism is also found frequently in the sputum of patients with pulmonary disease of proved non-mycotic origin. Similarly, it is found in the stools of patients having diarrhea due to various causes, such as sprue and pernicious anemia. With rare exceptions, *Candida albicans* has not been isolated from normal human skin.

Common sites of infection attributed to *Candida albicans* in human subjects are the mouth, esophagus, vagina, skin and its appendages, eyes, and lungs. At times diffuse involvement with brain abscesses, endocarditis, and invasion of the spleen, liver and lymph nodes has been reported. The severity of the infection for any type of localization varies from merely detectable to extremely grave.

(Continued on next page)

For instance the severity of bronchopulmonary moniliasis varies from a relatively mild infection, such as the monilial bronchitis affecting the tea tasters of Ceylon as described by Castellani, to more severe broncho-pulmonary infections, at times resembling miliary tuberculosis, with cough, fever, dyspnea, chest pain, and hemoptysis.

The better known and more common conditions predisposing to the development of moniliasis are diabetes, previous administration of steroids, antibiotics or antimetabolites, chronic debilitating disease, carcinomatosis, lymphoma, and the use of indwelling catheters or artificial heart valves. The association of hypoparathyroidism and moniliasis has been mentioned.^{1,2} Similarly other calcium deficiency states, often associated with tetany, have also been considered as factors predisposing to the development of moniliasis.³ A case of monilial granuloma with hypothyroidism was presented by Papazian and Koch in 1960.⁴

The mechanisms through which such predisposing conditions operate are not known. The favoring effect of antibiotics has been variously attributed to elimination of competitive flora or even to a role of active stimulation, as shown by the fact that chlortetracycline above certain concentrations can be proved to increase the growth of cultures of *Candida*. The possibility of aiding the spread of the fungus by inhibiting phagocytosis has also been entertained. Since the addition of glucose to cultures increases the growth of *Candida*, and diabetes is a well-known predisposing condition, it has been suggested that intravenous glucose administration may also favor systemic moniliasis. It is obvious, however, that factors other than hyperglycemia must be important, otherwise disseminated moniliasis would be a much more frequent complication of uncontrolled diabetes.⁵

In differential diagnosis isolation of the microorganisms from the sputum is usually of equivocal significance. It is often present in the normal gastrointestinal tract. Isolation of a species of *Candida* from venous blood in endocarditis and in systemic candidiasis, however, is of more significance. A twenty-four hour sputum specimen that has been left at the bedside or mailed to a laboratory is not suitable for a correct interpretation, since *Candida* is known to multiply rapidly under such circumstances. This would give an erroneous impression of the degree of infection. Immediate examination of a freshly collected sputum is necessary. To exclude contamination from an oral lesion, the patient should thoroughly cleanse his mouth before collecting the sputum. Only repeated positive results with these precautions are significant. Since two or more species of *Candida* as well as bacteria may be present in the same specimen, proper culturing is

important. Sabouraud medium is useful, and antibiotics should be added to the medium to prevent bacterial contamination. Mice are universally susceptible to intravenous inoculation of *Candida albicans*, but to no other species. Because of the small number of *Candida* cells present in many specimens, animal inoculation studies are often not useful. Serological or skin tests are not useful, since many normal individuals are hypersensitive or show agglutinins to *Candida* antigens. Since fungi such as *Candida albicans* are notorious secondary invaders, their presence in diseased tissue does not necessarily mean that they are responsible for the disease. Similarly, positive blood, tissue, and marrow cultures may be a result of laboratory contamination. Lengthy study of a patient may be necessary to rule out other causes of infection.

Since a fungus complicating a pre-existing bacterial infection may be unrecognized, ineffective or inappropriate antibiotic therapy for the bacterial infection may lead to intensification of the monilial growth and further deterioration. *Candida* infection may be overlooked even at autopsy, since the lesions are non-specific and *Candida* organisms are difficult to demonstrate in tissue with routine hematoxylin-eosin staining techniques.⁶

In monilial diseases of the gastrointestinal tract it is helpful to search for mycelia, rather than yeast forms commonly found when the organism survives as a saprophyte. Thus the eruption of clinical thrush lesions in infants coincides with the appearance of mycelia in oral smears. Prior to the onset of clinical manifestations the oral smear is negative for *Candida* elements or shows only the yeast form.^{7,8}

Rogers in 1957 was the first to propose the finding of mycelia in fecal smears as a diagnostic criterion of pathogenicity in intestinal moniliasis.⁹ Fresh fecal smears (pending examination the stool may be stored in the refrigerator to inhibit the proliferation of *Candida*) are mounted in 10 per cent sodium hydroxide and examined microscopically. Clinical criteria for the diagnosis of *Candida* enteritis are: 1) Diarrhea with mycelial form in direct fecal smear; 2) Disappearance of mycelia from the fecal smear in clinical remission; and 3) Absence of response to specific anticandida therapy (Nystatin®) in diarrheas of non-candida etiology.

In cases of mixed infection, it is impossible to determine which of the invaders is the predominant etiological factor. Laboratory studies should therefore routinely include tests for *Candida albicans*, besides enteropathogenic bacteria. If no bacterial or viral etiology can be demonstrated, the possibility of *Candida albicans* should be strongly suspected. *Candida albicans* grows out poorly, if at all, on culture media used for isolation of *E. Coli*, Sal-

monella, and Shigella and may be easily overlooked in Gram stained slides. Direct fecal smear is therefore doubly important. The association of oral or cutaneous candidiasis increases the probability of Candida as the cause of enteric disorders.

The clinical features of septicemia caused by *Candida albicans* are: 1) Fever, frequently associated with chills; 2) Shock, caused by either myocardial involvement or by the release of antitoxins; 3) Mental depression; and 4) Intestinal bleeding. Renal failure may also be seen in some cases due to extensive involvement of the kidneys.¹⁰

The role played by *Candida albicans* in the induction of septicemic shock can be demonstrated experimentally by the intravenous injection in dogs of yeast fractions. Such studies point to an antitoxin as the cause of shock seen clinically in *Candida* septicemia in the absence of myocardial involvement.¹¹ Because of the ability of the *Candida* organisms to produce alcohol, measurement of spinal fluid alcohol appears to be of diagnostic and prognostic value as to central nervous system involvement. Since some patients are obtunded out of proportion to other clinical findings, it is interesting to speculate as to whether local effect of the alcohol may account for some of the response.¹²

There are some dissenting opinions in the literature regarding the increasing incidence of monilia. Schencker¹³ and Kligman¹⁵ feel that some of the increased incidence actually represents oropharyngeal overgrowth. The predominant opinion, however, is that the increased incidence of monilial infection is genuine. In cases of suspected pneumonia bronchoscopic collection of the sputum has been suggested¹⁴ in order to avoid possible contamination of the specimen in the upper respiratory tract. Even this refinement is not entirely satisfactory, since contamination of the instrument during passage through the oral cavity may occur. Kligman believes that the diagnosis of pulmonary candidiasis can be made only by demonstrating the organism histologically and culturally in a lung biopsy specimen obtained through a thoracotomy incision. This technique had been advocated by Scott as far back as 1958 in all cases of suspected pulmonary moniliasis. Such a procedure can now be performed with minimal morbidity and very low mortality (less than 0.5 per cent). Lung biopsy should be considered whenever pulmonary moniliasis is suspected.

Negative blood cultures may be obtained in fatal cases of acute disseminated moniliasis where histological studies later show the presence of the fungus in the tissues.¹⁶

There are no innocent or harmless monilial infections, since predisposing factors may transform

a minor or localized infection into a very serious and generalized process at any time.

SUMMARY

A case of monilial infection is presented, characterized by a fulminating course, leading to death forty-two hours after admission to the hospital. The patient was a fifty-year-old white woman, a mild diabetic, who had been given a short course of antibiotic treatment three weeks prior to admission. The clinical picture was that of postprandial abdominal pain in the three weeks prior to admission then excruciating abdominal pain on admission, followed by coma, shock, and death.

A chest x-ray study on admission was entirely unremarkable, while post mortem examination forty-two hours later disclosed acute diffuse monilial pneumonia. A 20 cm. segment of proximal ileum showed evidence of purplish discoloration and a microscopic picture of diffuse necrotic hemorrhagic enteritis with infiltration of monilia within the tissue.

The literature was reviewed. Predisposing factors in moniliasis and increased incidence of this condition were discussed. Diagnostic techniques were outlined. The existence of an hyperacute or fulminating form of moniliasis was emphasized.

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MEASLES ENCEPHALITIS — AN EPIDEMIOLOGICAL AND CLINICAL ANALYSIS

Treatment With Steroids Appears To Have Beneficial Effect on the Sequelae

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In July 1952 Solomons, Markham, and West¹⁶ reported on 35 cases of measles encephalitis treated in the Charles V. Chapin Hospital (Providence, R.I.) during a period of fifteen years (1937-1952). This report is a continuation of their work and covers the ensuing fourteen years. Its purpose is to review the disease, its epidemiological and clinical aspects, sequelae, and mortality, and to evaluate therapeutic measures.

The epidemiological analysis is based on 51 cases treated at the Chapin Hospital (April 1952-April 1965) and 9 admitted to the Rhode Island Hospital during that period from the same area. The clinical analysis was based on 50 cases of measles encephalitis admitted to the Charles V. Chapin Hospital during the same period (Fig. 1).

EPIDEMIOLOGICAL ANALYSIS

According to the Rhode Island Health Department,²¹ there were 51,031 cases of measles reported in the years 1937-1952, 35 of which were fatal. The average fatality rate was 1:1457 or 0.07 per hundred cases. In the years 1953-1964, 34,863 cases were reported, with 9 deaths, a fatality rate of 1:3874 or 0.025 per hundred cases. (Fig. 2)

The actual number of measles cases was probably three or four times higher than reported, because many cases, especially mild ones, are not seen by a physician, and others are not reported. The officially published figures were used as a basis for this analysis.

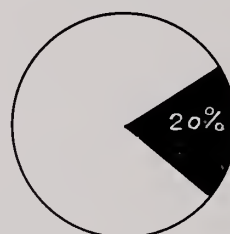
The population of Rhode Island increased from about 700,000 in 1940 to approximately 900,000 in 1960. This is an average increase in each ten-year period of about 15 per cent (Fig. 3)

The number of measles cases in any epidemic during the 1940's was about 5,300, but in the 1960's it increased to 7,300. This represents an increase of around 15 to 18 per cent every ten years. The average morbidity during epidemics is roughly constant — between 750 and 800 reported cases per hundred thousand of population. Measles epidemics in Rhode Island have occurred about every three years (1937, 1940, 1942, 1944, 1947, 1949, 1952, 1955, 1958, 1961).

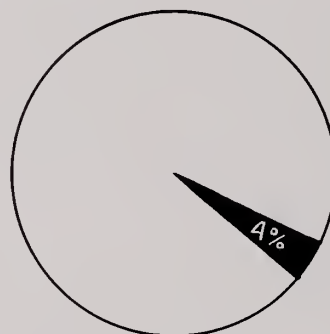
MEASLES ENCEPHALITIS

YEAR	NO of MEASLES CASES	NO of MEASLES ENCEPHALITIS CASES	AVERAGE INCIDENCE	AVERAGE FATALITY
1937-52	51,031	35	0.07	80%
1953-64	34,863	9	0.14	4%

IN 1937-52



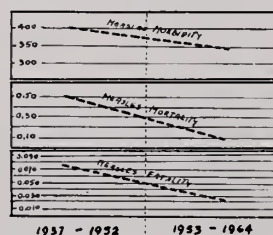
IN 1953-64



AVERAGE INCIDENCE AND FATALITY

MEASLES IN RHODE ISLAND

YEARS	AVERAGE POPULATION IN RHODE ISLAND	AVERAGE YEARLY NO of MEASLES CASES	NUMBER of DEATH	AVERAGE MORBIDITY	AVERAGE MORTALITY	AVERAGE FATALITY RATE
1937-52	750,000	~ 3,800	35	400	0.46	0.070
1953-64	854,000	~ 2,900	9	350	0.10	0.025

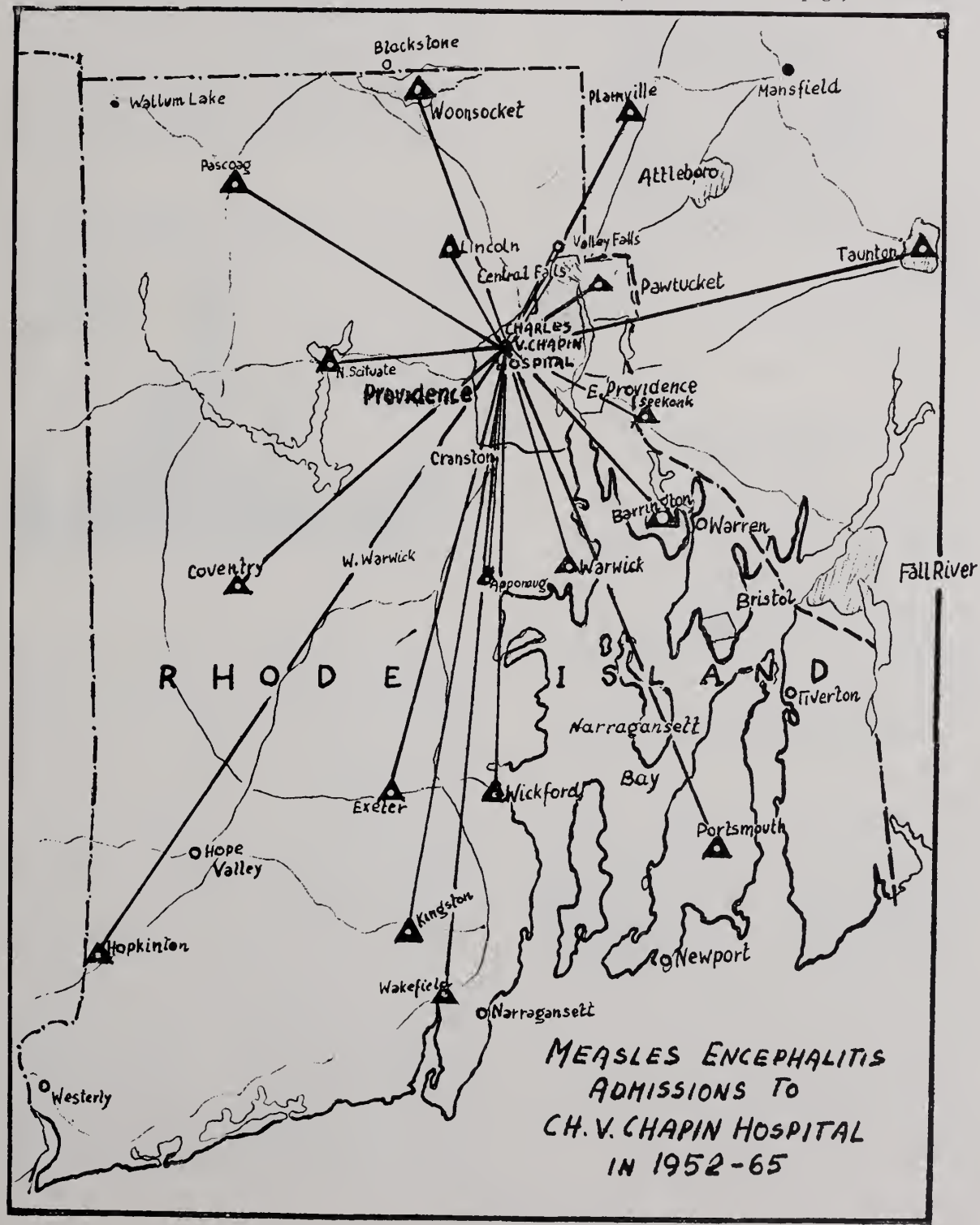


Measles Encephalitis in Rhode Island. In the years 1937-1952, 35 cases of measles encephalitis were diagnosed of which 7 were fatal (a fatality rate of 20 per cent). In the years 1953-1964 there were 50 cases so diagnosed, of which 2 were fatal (4 per cent).

Incidence. The average incidence of measles encephalitis in the years 1937-1952 was 1:1457 or 0.07 per hundred reported cases of measles. In the

years 1953-64, the average incidence was 1:696, or 0.14 per hundred reported cases of measles. (Fig. 4) The average incidence rate increased almost twice as between the two periods. The mean incidence of measles encephalitis in the last fourteen years was 1:700, or 0.13 per hundred of reported cases. (Fig. 5)

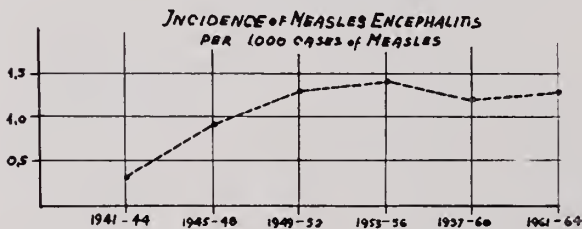
Since the estimated measles incidence is at least
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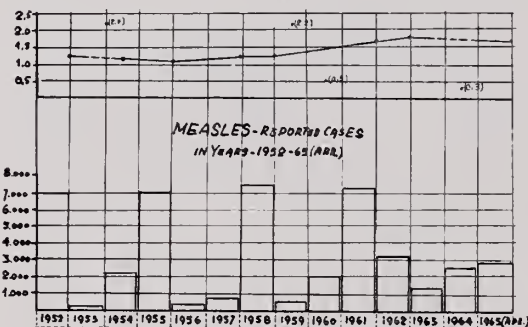
three times higher than reported, the estimated incidence of measles encephalitis is probably 1:2000 or about 0.05 per hundred cases. Although the incidence of measles encephalitis has almost doubled in the last twenty-five years, the fatality rate has dropped 80 per cent. In the same period, the fatality rate for measles has decreased 50 per cent.

MEASLES ENCEPHALITIS—INCIDENCE—LAST 24 YEARS

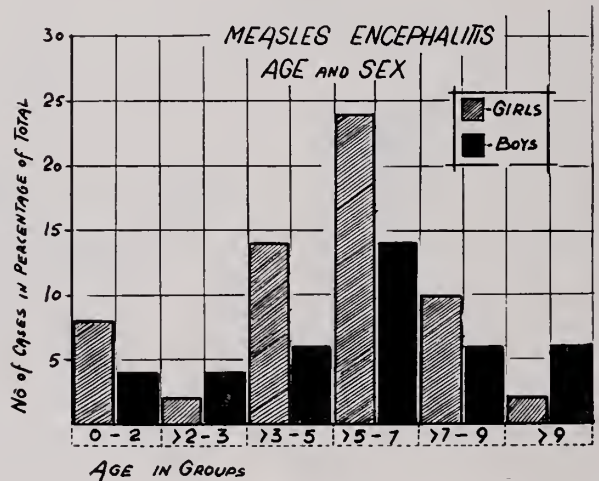
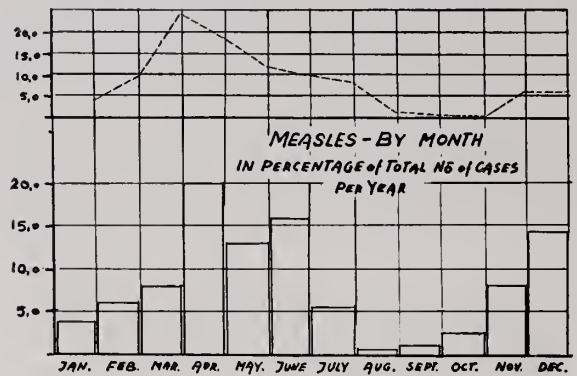
	MEASLES No of CASES	MEASLES ENCEPHALITIS No of CASES	INCIDENCE IN %
1941-44	15,185	5	1:3000 0.3
1945-48	7,491	7	1:1064 0.9
1949-52	15,093	21	1:718 1.3
1953-56	9,632	14	1:688 1.4
1957-60	10,541	13	1:810 1.2
1961-64	14,290	19	1:752 1.3
	72,232	79	1:914 1.1



MEASLES ENCEPHALITIS MEAN INCIDENCE PER 1000 CASES OF MEASLES (1941-1964)



MEASLES ENCEPHALITIS—BY MONTH IN PERCENTAGE OF TOTAL NO of CASES



CLINICAL ANALYSIS

The clinical evaluation was based on the records of 50 patients, of whom 5 were recently hospitalized. Personal observations by the authors were possible in the latter cases. Follow-up investigations were accomplished in 34 cases.

Onset of Symptoms. Involvement of the nervous system was rather sudden, occurring generally on the third to sixth day after the onset of the measles exanthem (in 66 per cent of cases). In a few cases symptoms of encephalitis were noted within the first twenty-four hours of the rash, and in 2 cases the symptoms actually preceded the exanthem. One of these, a 6½-year-old girl, ran a fulminant course with hyperpyrexia (107°F.), opisthotonos and coma, and died within a few hours. The second, a 3½-year-old girl admitted in coma, developed a rash after twenty-four hours. She improved rapidly and was discharged within a week. In a few cases (14 per cent), the symptoms of central nervous system (CNS) involvement appeared after six days or more following the appearance of the rash. No

Season. The seasonal incidence of measles encephalitis is the same as that of measles. According to the Rhode Island State Health Department over 57 per cent of all cases of measles occurred (1964) in the months of March, April, May, and June. Sixty-four per cent of measles encephalitis cases occurred in the same period (Fig. 6).

Age. The youngest patient was 11 months old, while the oldest was 25 years (a female). The highest incidence (nearly three-quarters of our cases) occurred in the age group of 3 to 9 years (Fig. 7).

Sex. An obvious but inexplicable preponderance of girls is striking, especially in the age group 3 to 9 years. In the age group below 3 and over 9 years females constituted 45 per cent (Fig. 8).

obvious correlation between the time of appearance of the exanthem and the severity of the nervous system involvement was observed.

Symptoms and Signs on Admission. The majority of patients had an elevated temperature on admission, but none was extremely high. About half had a temperature over 102°F. and about 12 per cent over 104°F. In 12 patients (24 per cent), the temperature was normal on admission. Roughly half the patients were having convulsions and half were in coma at the time of admission.

Major Symptoms and Signs of CNS Involvement. *Convulsions* were the most frequent symptom on admission. In our group, 26 patients (52 per cent) were admitted in convulsions of varying severity and duration. More than half of them were in coma or lethargy.

Coma or lethargy were next frequency. On admission, 13 patients (26 per cent) were in deep coma, while 17 patients (34 per cent) were lethargic.

Meningeal reactions, including neck rigidity of varying severity (from questionable to opisthotonos), and Kernig and Brudzinski's signs were present on admission in 27 patients (54 per cent).

Paresis, tremor and ocular palsy were found in 7 patients (14 per cent).

Other Symptoms and signs of CNS involvement on admission were confusion, irritability, hallucinations, delirium, vomiting, headache, urinary retention, respiratory difficulties, and cyanosis (without obvious primary pulmonary or cardiac involvement), and muscle pain.

PAST MEDICAL HISTORY

Certain authors have suggested that previous brain damage, such as from mumps encephalitis or trauma, or pre-existing CNS disease, such as epilepsy or organic brain syndromes, predisposes the measles patient to encephalitis and to a more severe course and sequelae.

Review of the histories in our group showed the following:

1) In 23 patients (46 per cent) there was no history of CNS disease nor any known "brain condition," or trauma. Twelve of these were admitted in coma, in convulsions, or with both. In 4, the course of the disease was prolonged. In 3 patients, various sequelae were noted on discharge. One patient died.

2) There was a history of mumps in 12 patients (26 per cent). Six of these were admitted in convulsions or in coma, or with both. About 15 per cent had a prolonged course. Twenty-three per cent left the hospital with sequelae.

3) Five patients had suffered head injuries. In 3 of these, convulsions or coma, or both, were present on admission. Two of the 5 left the hospital with sequelae.

4) Of the 4 patients who had previous "brain conditions" (mental retardation, convulsions, paresis), 3 were admitted in convulsions or coma, or with both. One had sequelae upon discharge from the hospital.

LABORATORY DATA

1) *Cerebrospinal fluid* was obtained in all 50 patients on admission. In 11 (22 per cent) findings were normal. Of these, 4 patients were in coma, 2 in convulsions, while one expired within a few hours.

The abnormal cerebrospinal fluid findings were as follows:

A) *Cells.* Moderate pleocytosis (50 cells/ml with predominant lymphocytes) was found in one-third of the patients. Pleocytosis (over 50 cells/ml.) was found in 42 per cent. The highest count (over 2,000/ml.) was found in a boy with very mild clinical symptoms.

In 3 patients, slight albuminocytologic dissociation was found (total protein in range of 55-90 mg. per cent).

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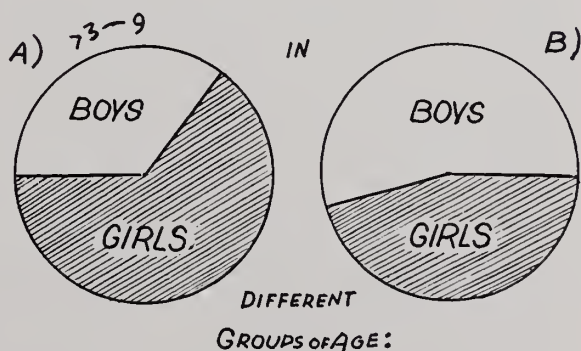
MEASLES ENCEPHALITIS

INCIDENCE IN GIRLS

1952-1965

AGE IN GROUPS	ONLY GIRLS		ALL CASES	
	No of cases	PERCENT.	No of cases	PERCENT.
3-9	24	64.8	37	100.0
OTHER AGE GROUPS	6	46.1	13	100.0

PERCENTAGE OF GIRLS



A) -OVER 3-TO 9 YEARS; B) BELOW 3, AND OVER 9 YEARS

B) *Total Protein*. Considering a maximum normal to be 40 mg. per cent, there was a normal total protein level in 21 patients (42 per cent). Eight patients had borderline values of greater than 45 to 55 mg. per cent, while 21 (42 per cent) had levels over 55 mg. per cent. The maximum was 420 mg. per cent.

C) *Sugar*. The sugar level ranged from below 50 mg. per cent to over 145 mg. per cent. In 3 patients it ranged between 45 and 50 mg. per cent, while in 31 patients (67 per cent), it was between 50 and 85 mg. per cent. In 12 patients it was over 85 per cent, the maximum being 147 mg. per cent.

2) *Leukocytosis*. As contrasted with uncomplicated measles, which is characterized as a rule by leukopenia, we found 33 patients (66 per cent) with a white blood count (WBC) of over 10,000 and in 9 over 20,000. Only 2 patients had leukopenia. Fifteen (30 per cent) showed a normal count. In almost half of all patients, and in nearly two-thirds of the patients with leukocytosis, the Schilling count showed a "shift to the left."

3) Electroencephalography was performed in 16 cases (32 per cent), all of whom were admitted in convulsions or in coma, or with both, or showed lethargy. The study was within normal limits in 5 of these! A focal epileptic pattern was found in 5 others. Three of these showed convulsions, while the other 2 were in coma or lethargic. In the 6 remaining patients, the electroencephalogram (EEG) showed a diffuse, abnormal pattern of generalized cortical involvement.

CLINICAL ENTITIES

Some authors subdivide measles encephalitis into smaller clinical entities according to a) symptomatology, mainly cortical, subcortical, spinal, or peripheral; b) presence or absence of meningeal reactions; c) cerebrospinal fluid findings; and d) presumable type of histopathological changes (mainly vascular, demyelination pattern, or generalized edema). In our series, the following clinical entities were differentiated:

1) *Encephalitis* (with presenting symptoms of convulsions, coma, lethargy, hallucinations, delusions, paranoid ideas, psychotic reactions, hostility, or aggressive rage, but without any focal neurologic deficit or meningeal reaction) was found in 22 patients (44 per cent).

2) *Meningoencephalitis*. This group, consisting of 18 patients (36 per cent), presented the same symptoms as above, but in addition meningeal reactions were found, some extremely severe (opisthotonos).

3) *Encephalomyelitis*. In this group were 2 patients showing symptoms of convulsions, coma, or

both, and also paraplegia, facial paresis (and hemiparesis).

4) *Myelitis*. Two patients revealed no symptoms of upper CNS involvement, but showed acute urinary retention (neurogenic bladder), paraplegia with levels of sensory changes, and saddle anesthesia.

CONVULSIONS AND COMA

These two conditions are the most serious and most dramatic. Eighteen patients had convulsions (36 per cent); 5, coma (10 per cent); and 8 (16 per cent) coma and convulsions. These 31 patients represent 62 per cent of the admissions.

Convulsions. More than half of the patients were admitted in convulsions, 8 of them also in coma (nearly half). Two died, giving a mortality in this group of 8 per cent.

Nearly 66 per cent of the patients in convulsions responded dramatically to anticonvulsive treatment within a few hours. Four had recurrent seizures for up to twenty-four hours, while another 4 had convulsions for up to three days in spite of treatment.

The average fever in this group was lower than in patients admitted without convulsions. Two-thirds had a normal or moderately elevated temperature, while the others were over 102°F. (In comparison half of the 24 patients without convulsions had temperatures over 102°F.) The cerebrospinal fluid was abnormal in 85 per cent of these cases, and there was leukocytosis in over 70 per cent. Corresponding values in patients not in convulsions were 62 per cent and 55 per cent. Parameters of age, sex, and exanthem timetable were roughly similar in convulsive and nonconvulsive patients. The incidence of sequelae was also similar.

Coma and lethargy. Of the 13 patients admitted in coma and 17 in lethargy, almost half recovered in less than two days, some within several hours. More than one-fourth were comatose (or lethargic) for two or three days. Another one-fourth were comatose for over three days; one patient was in coma for twenty-one days. Temperature of over 102°F. was found in nearly half of the patients.

Abnormal cerebrospinal fluid and leukocytosis were present in about 75 per cent of the cases. Cerebrospinal fluid sugar was over 85 mg. per cent in 33 per cent of the comatose-lethargic patients, but only 15 per cent of the remaining patients showed a level above 85 mg. per cent.

Age and sex were in the average range. There is obvious relationship between duration of coma (lethargy) and sequelae. In the 30 patients, 14 had early and 6 had late sequelae. In those comatose for two days or less, the incidence of sequelae on discharge was 33 per cent. In those in coma over three days, sequelae were noted in 75 per cent.

TREATMENT

During the first five years of the reported period, treatment was symptomatic and supportive, including anticonvulsants, parenteral fluids, and antibiotics (especially Achromycin®). In 1958, the use of steroids was initiated, namely, cortisone, prednisone, and, more recently, Decadron.® Steroids were given to 63 per cent of the patients treated since 1958. We used Decadron,® the average dose being 1 mg./kg./24 hr., with a range of 0.5 to 2.0 mg./kg./24 hr. Steroids were administered as soon as the diagnosis was established, generally within the first twenty-four hours. The initial dose was 1 mg./kg./24 hr. This was decreased gradually according to overall results and clinical improvement. Average duration of therapy was from seven to twelve days, and no obvious and serious side effects were noted in any of the 21 patients.

Influence of Steroid Therapy on Sequelae. As steroids were given only to the seriously ill, comparison of that group with those on only symptomatic treatment is of no value. It is of interest, however, to compare both groups as to incidence of early and late sequelae. In 34 who were checked for late complications, 19 had only symptomatic treatment, while 15 patients also had steroids.

Early sequelae (at the time of discharge) were found in 21 per cent of the group on symptomatic treatment as compared with 26 per cent in the patients receiving steroid therapy. Late sequelae were found in more than half of the patients on symptomatic treatment only, compared to 20 per cent of those receiving steroids.

COURSE OF THE DISEASE

Duration. The average hospitalization was twenty-two days. The greatest number of days in 1951-54 was nineteen, but this increased to twenty-five days in 1961-65. Sixty-five per cent were hospitalized for two to three weeks, and 20 per cent for from four to six weeks.

Mortality. Two patients died, a mortality rate of 4 per cent.

SEQUELAE

Early Sequelae. There were no apparent complications in 35 patients. Complications in 13 patients included behavioral problems or emotional instability (9) and varying degrees of paresis (4).

Late Sequelae. Information concerning late sequelae was obtained in 34 patients (68 per cent). This was accomplished through direct contact with the patient or his family, through his physician, or both. More than half (18 cases) were treated over five years ago and 10 more than 10 years ago. One-third were admitted between two and five years ago, and 5 within the past 2 years.

In 21 patients (42 per cent of our group), no

complications were noted. In 13 (38 per cent), the following neurological sequelae were found: a) epilepsy in 3 cases, b) paresis and speech disturbances in 3, c) personality changes, emotional instability, and drop from previous intelligence in 7 cases, and d) persistent chronic headache in several cases.

Of 10 cases hospitalized ten or more years ago (1954-55), 3 are epileptics who are doing well on anticonvulsive treatment, while 2 still have moderate behavior and emotional problems as well as inferior intelligence. In the 11 patients treated two to five years ago, 2 still have behavior and emotional problems as well as persistent headache. One case treated seven years ago was seen by his physician three years after discharge (at age of 4 years), and at that time was not walking or talking. In the remaining 5 cases, symptoms of headaches, paresis, and emotional instability disappeared within a few weeks to one or two years after discharge.

It is of interest to consider whether the late sequelae are or could be predictable. Age, sex, severity of complications, the only exception being prolonged coma. In our small series of coma cases the incidence of sequelae was doubled.

Another consideration was whether early sequelae might be a possible parameter of predictability. In the group of 34 patients in whom a late follow-up study was done, 23 (67 per cent) had no apparent symptoms or signs of sequelae. Half of these (11) developed sequelae weeks or months after discharge. Three patients had epilepsy, while in the other 8 there were behavior problems, emotional instability, paresis, cerebellar symptoms, and mental deficiency. The rest of the patients showed no late sequelae four or five years after discharge. Three patients left the hospital too recently to be evaluated for late sequelae.

Of the 11 patients discharged with early sequelae (including emotional instability, behavior changes, tantrums, cerebellar disturbances, neurogenic bladder, speech disturbances, and paresis), only 2 still had residual findings. In 8 others, improvement occurred within a few weeks to a few years. One, a 25-year-old woman with a myelitis type of involvement (paraplegia with sensory level and neurogenic bladder), improved within a couple of weeks and married shortly thereafter!

A third consideration is evaluation of electroencephalographic examination as a prognostic and predictability measurement. In 5 patients, paroxysmal discharges were interpreted as a possible source of future epilepsy, but none developed convulsions in the three to six years after discharge. In another 5 cases tracings revealed generalized abnormal patterns, and one of those patients still (after 10 years) has epilepsy. Findings were reported as nor-

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mal in 5 patients whose electroencephalograms were obtained during or shortly after hospitalization. These patients recovered completely, except for 2 who had mild behavior changes or persistent headache.

DISCUSSION

Measles encephalitis, with its high fatality rate and often serious brain damage, places measles, otherwise a universal and benign disease, in the category of a most serious hazard in childhood. Though known for almost a hundred years, its pathogenesis is still a subject for speculation, the treatment empiric, and the prognosis unpredictable.

The incidence of measles encephalitis varies in different series and in different epidemics. The highest reported in the literature was 12 per cent in Sweden in 1949. A high incidence (4 per cent) was also noted in Greenland in 1944. In the United States, Greenberg¹⁰ noted an incidence in 1955 of 0.14 per cent (1:700). Miller, cited by Tyler¹⁸ in 1957 found an incidence of 1:400-1:1000 in reported cases. La Bocchetta¹³ noted an average incidence in 1947-57 of 1:1000 (reported cases of measles) in his series. In Rhode Island, Solomons¹⁶ found an incidence of 1:3000 in 1937-46 and 1:800 in 1947-52.

The incidence of 0.14 per cent (1:700) as found in our group is roughly similar to the reported series, as previously noted. Many authors (Paine¹⁴) point out that the estimated incidence is apparently much lower, since all numbers are based on reported measles cases only. The higher incidence of measles encephalitis in the age group over 3 and below 9 years is commonly noted.

The markedly higher incidence in girls, especially in the early school age group, was pointed out by Solomons in 1952.¹⁶ Sixty-three per cent of his group were females. He also noted a more severe course in females, and all of his fatal cases (20 per cent) were girls. Our data confirm his findings. We noted an overall incidence of 60 per cent in girls. In the early school age group we found 24 girls (65 per cent), as compared to 13 boys (35 per cent). Both of our fatal cases were girls. We also observed a more severe course and more severe sequelae in girls.

This inexplicable preponderance of females is mentioned only occasionally in the literature. Only Greenberg¹⁰ and Tyler¹⁸ noted this. On the contrary Karelitz¹¹ and La Bocchetta¹³ found a higher incidence in males.

The average incidence (0.14 per cent) in the last twelve years (1953-1964) was double that of the previous sixteen year period (0.07 per cent in 1937-1952) noted by Solomons.¹⁶ The mean incidence of measles encephalitis in the last fourteen years seems to have been fairly constant.

The fatality rate in measles encephalitis varies. The "textbook" fatality²⁰ fluctuates between 10 and 30 per cent. Solomons (1937-52) found a fatality rate of 20 per cent. Similar rates were reported by Paine (1965),¹⁴ by Karelitz (1952-59),¹¹ and by Greenberg (1955).¹⁰ La Bocchetta (1964)¹³ and Tyler (1957)¹⁸ found a fatality rate of 11.5 per cent. The rate of 4 per cent in our group is surprisingly low, especially when compared to Solomons' findings.

In the years 1937-52, the average morbidity rate for measles was 400 per 100,000 of the population. In the same period, the mortality rate for measles was 0.46 per 10,000 of the population, while the measles overall fatality rate was 0.07 per cent.

In the years 1953-64, the average morbidity rate for measles was over 350 per 100,000 of the population, slightly lower (a decrease of 8 per cent) than in previous periods, but the mortality rate dropped to 0.10 per 10,000 of the population and the fatality rate decreased to 0.025 per cent.

The maximum incidence of CNS involvement on the third to sixth day following the onset of the rash as noted in our group, is commonly reported. The involvement of the nervous system prior to the onset of eruption, noted in 4 per cent of our cases, is considered a rarity by Paine.¹⁴ All authors observed a dramatic, extremely acute onset of encephalitis in most of their cases. The majority agree that there is no direct relationship between severity of measles and incidence of CNS involvement.

Most authors have noted high fever in a majority of cases, as occurred in our series. Convulsions, coma, and lethargy were pointed out also by Karelitz, La Bocchetta, and Solomons as the most frequent presenting symptoms. La Bocchetta, for example, noted convulsions in 56 per cent, lethargy in 48 per cent, and coma in 28 per cent — rates very similar to ours. That the form and severity of onset do not indicate the further course and prognosis was noted also by Solomons¹⁶ and Tyler.¹⁸

In our experience the adequate control of convulsions does not, as postulated by Tyler, necessarily warrant a good prognosis. We noted many cases with very well controlled convulsions and an uneventful course in the hospital, who had serious sequelae (such as epileptic seizures) even ten or eleven years later. Control of convulsions is apparently of utmost importance. Both of our fatal cases expired in convulsions. Convulsions as the immediate cause of death was also noted by Solomons and others.

There is an obvious and direct relationship between duration of coma and sequelae. Coma of over three days duration was followed by sequelae in

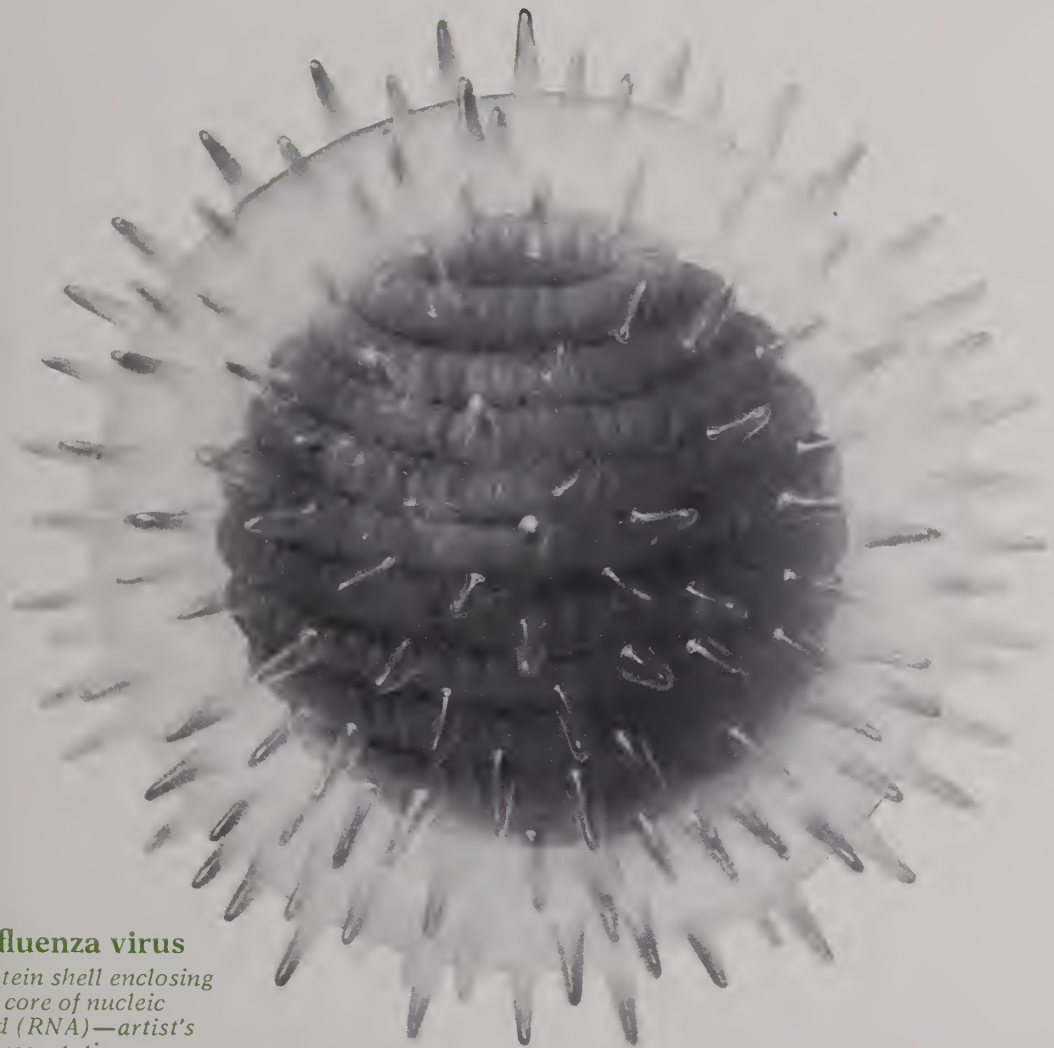
(Continued on Page 41)

New from Du Pont

Symmetrel[®]

(Amantadine HCl)

the first oral chemical virostat for the prevention of influenza A₂



Influenza virus

*Protein shell enclosing
the core of nucleic
acid (RNA)—artist's
representation*

The incidence of influenza A₂. In this country, where influenza is one of the leading causes of morbidity, influenza A₂ (Asian) continues to be a serious medical problem. In 1957 influenza A₂ was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A₂ (Asian).

What is Symmetrel[®]? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A₂ (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presentation

What Symmetrel® (amantadine HCl) means to you

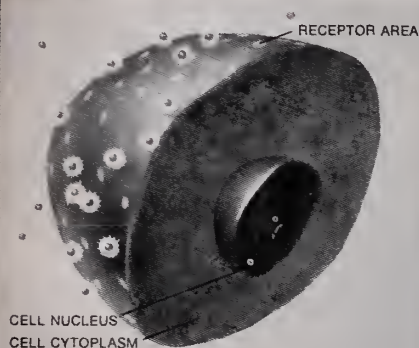
- ... the first and only oral chemical agent to prevent influenza A₂ (Asian).
- ...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.
- ...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.
- ...specifically active against all influenza A₂ viruses tested to date.
- ...not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.
- ...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

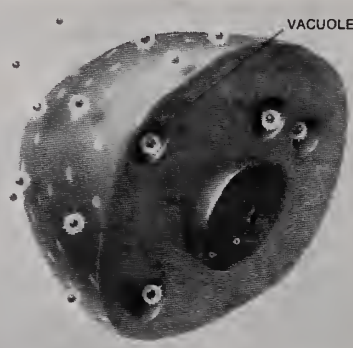
- ...possible immediate influenza A₂ protection when taken following suspected contact.
- ...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A₂ is especially hazardous.
- ...a high degree of safety in clinical use.
- ...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

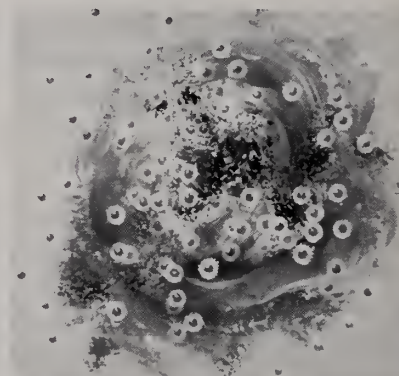
How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

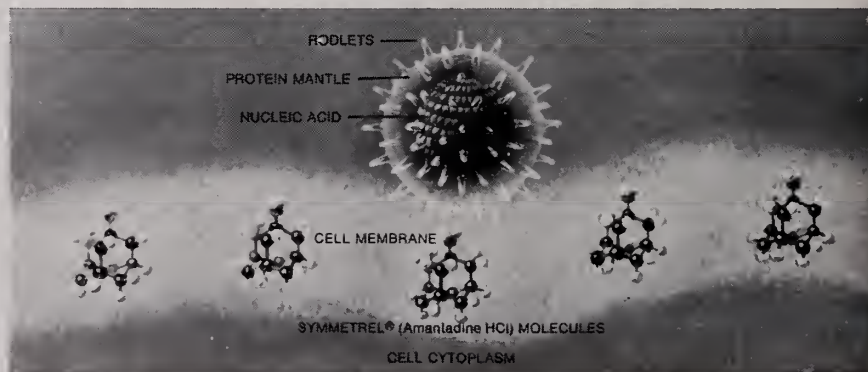
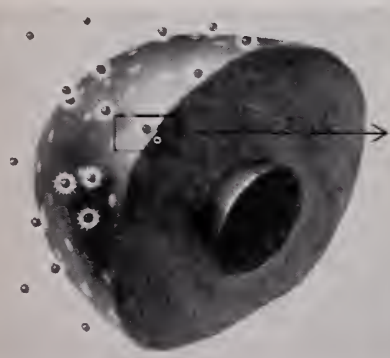


2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion¹



Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

¹ "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Hafl, R. F.; and Goldsby, R. A., *Journal of Bacteriology* 90,623 (1965).

Safety of Symmetrel® Confirmed. When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Prescribing Information

Indications: "Symmetrel" is indicated for the prevention (prophylaxis) of influenza A₂ in persons of all age groups. Early use is recommended, preferably before or as soon as possible after actual or suspected contact with individuals suffering from influenza A₂. "Symmetrel" should especially be considered for high influenza-risk patient groups such as those suffering from chronic debilitating diseases and elderly persons.

Contraindications: Not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.

Warnings: Administration to patients with central nervous system disease, particularly geriatric patients with cerebral arteriosclerosis, and patients with a history of epilepsy or other "seizures," requires strict observation for possible untoward effects (see Adverse Reactions). Patients taking psychopharmacologic drugs, central nervous system stimulants, or alcoholic beverages should be observed for possible evidence of intolerance. Those patients who experience central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important.

No teratogenic effects have been seen in reproductive studies in rats and rabbits. Studies in pregnant women have, however, not been done and use of this drug in women of childbearing age should be undertaken only after weighing the possible risks to the fetus against benefit to the pregnant patient. It should not be administered to nursing mothers since it is not known whether the drug is secreted in the milk.

Precautions: Ineffective against bacterial infections. Patients should be observed for idiosyncratic reactions as with all new drugs. Geriatric patients with pre-existing serious medical illnesses with mental or physical deterioration should be followed carefully medically while taking "Symmetrel." (See Adverse Reactions.)

Adverse Reactions: With higher than indicated doses manifestations of central nervous system effects such

as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: *Adults:* Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: *Capsules:* Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.

Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.



Symmetrel®
(Amantadine HCl)

A molecular barrier to virus penetration

arrest diarrhea

in • gastroenteritis • acute infections



LOMOTIL[®]

Each tablet and each 5 cc. of liquid contains:

diphenoxylate hydrochloride 2.5 mg.

(Warning: May be habit forming)

atropine sulfate 0.025 mg.







Effectiveness: Lomotil possesses a unique degree of effectiveness in both acute and chronic diarrhea.

Convenience: Lomotil is supplied as small, easily carried, easily swallowed tablets and as a pleasant, fruit-flavored liquid.

Versatility: The therapeutic efficiency, safety and convenience of Lomotil may be used to advantage alone or as adjunctive therapy in diarrhea associated with:

- Ulcerative colitis
- Acute infections
- Irritable bowel
- Regional enteritis
- Drug therapy
- Food Poisoning
- Functional hypermotility
- Malabsorption syndrome
- Ileostomy
- Gastroenteritis and colitis

Dosage: For correct therapeutic effect—Rx correct therapeutic dosage. The recommended initial daily dosages, given in divided doses, until diarrhea is controlled, are:

Children: Age	Total Daily Lomotil Dosage	Lomotil Liquid Dosage (Each teaspoonful [4 cc.] contains 2 mg. of diphenoxylate HCl)
3-6 months	3 mg. 	½ tsp. 3 times daily
6-12 months	4 mg. 	½ tsp. 4 times daily
1-2 years	5 mg. 	½ tsp. 5 times daily
2-5 years	6 mg. 	1 tsp. 3 times daily
5-8 years	8 mg. 	1 tsp. 4 times daily
8-12 years	10 mg. 	1 tsp. 5 times daily

Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily) Based on 4 cc. per teaspoonful. Maintenance dosage may be as low as one-fourth the initial daily dose.

Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be kept out of reach of children since accidental overdosage may cause severe respiratory depression. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.



why wonder about a drug

when you know

DECLOMYCIN[®]

DEMETHYLCHLORTETRACYCLINE

is effective b.i.d.



It's made for b.i.d.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—when the offending organisms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essen-

tial. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

417-6-407A



for noses of every description,
one safe and sure prescription:

Otrivin®
(xylometazoline CIBA)
on Rx only



- quickly relieves congested nose
- action is gentle, yet prolonged
- side effects are minimal

INDICATION: Nasal congestion. **CONTRAINDICATION:** Do not use in patients sensitive to small doses of sympathomimetic substances. **WARNINGS:** Prolonged or excessive use may cause rebound congestion. Use cautiously in patients with hyperthyroidism, coronary artery disease, hypertension, and diabetes. **CAUTION:** Do not shake Nasal Spray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water after each use. No more than one person should use the same dropper bottle or nasal spray.

SIDE EFFECTS: Occasional local reactions: rebound congestion, slight burning or stinging, sneezing, dry nose. Occasional systemic effects: headache, drowsiness, lightheadedness, insomnia, palpitations. Overdosage in young children may produce profound sedation.

DOSAGE: **Adults:** Nasal Solution—2 or 3 drops in each nostril every 4 to 6 hours. Nasal Spray—Squeeze rapidly once or twice in each nostril every 4 to 6 hours. **Children under 12:** Pediatric Nasal Solution—2 or 3 drops in each nostril every 4 to 6 hours. One drop should be used

in infants under 6 months. **Pediatric Nasal Spray**—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours if necessary. **SUPPLIED:** OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) Nasal Solution, 0.1%; dropper bottles of 1 fluidounce. Nasal Spray, 0.1%; plastic squeeze tubes of 15 ml. Pediatric Nasal Solution, 0.05%; dropper bottles of 1 fluidounce. Pediatric Nasal Spray, 0.05%; plastic squeeze tubes of 15 ml. Nasal Solutions contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. Nasal Sprays contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic sodium chloride, and benzalkonium chloride 1:5000 as preservative water. Consult complete literature before prescribing.

CIBA Pharmaceutical Company, Summit, N. J.

C I B

MEASLES ENCEPHALITIS

(Continued from Page 40)

75 per cent of our cases. In those with coma of less than three days, sequelae occurred in only 33 per cent. This accords with the experience of Tyler.

We did not observe a higher rate of mortality or a more severe course of the disease and more frequent sequelae in patients with a history of mumps, as noted by Solomons.

The incidence of normal cerebrospinal fluid values in our series is much higher than that found by other authors. We did not find particularly low cell counts in the spinal fluids of fatal or especially severe cases, as was noted by Solomons. Like Tyler and Karelitz, we did not observe a direct relationship between cerebrospinal fluid findings and prognosis. We noted, as did La Boccetta, obviously higher levels of sugar in the spinal fluid of the comatose patients.

Tyler reported an incidence of myelitis of 15 per cent, while Paine noted 33 per cent. In our group, only 4 per cent had isolated spinal involvement, while encephalomyelitis was found in 20 per cent. Paine supposes that the incidence of myelitis in measles is probably much higher than reported, since in many instances it is difficult to evaluate properly whether abnormal neurological findings are of spinal or cerebral origin.

Many authors point out extremely variable and entirely unpredictable cases of measles encephalitis. Many patients admitted in the evening in severe convulsions and deep coma are found entirely asymptomatic the following morning. Others run a protracted course, have a slow recovery, and develop various sequelae. Tyler mentioned a case hospitalized for 180 days!

The treatment of measles encephalitis is a matter of controversy in the literature. Since the etiology and pathogenesis are still unknown, treatment is entirely empirical. Gamma globulin, used in the past, was evaluated by Greenberg in 1955¹⁰ and found useless. Steroids, introduced by Appelbaum⁴ in 1956 and by Allen² in 1957, and reported by those authors as drugs of choice, were criticized in the reports of Ziegra¹⁹ and Karelitz.¹¹ Both of those authors, in controlled but small series, reported prolonged course of the disease, increased mortality, and increased rate of sequelae in patients on steroids. Nevertheless, it seems to us that the use of steroids warrants some support.

In 1961, Koprowski¹² presented immunological and histopathological evidence of the similarity between "allegic encephalitis" and so-called "post-infectious" encephalitis, including measles encephalitis, as proof that a hyperergic reaction of nervous tissue is a pathogenetic mechanism in measles encephalitis. Recently, Burnstein et al. (1964)⁷ sup-

plied more evidence supporting indirectly the hypothesis of hyperergy as the basis of the disease. Burnstein⁸ was able to develop a neurotropic strain of measles virus in experimental animals. He found brain lesions typical of viral encephalitis, namely, involvement of gray substance, giant cells, an inclusion body formation, but he did not find a typical lesion for measles encephalitis (and other post-infectious encephalitides). Perivascular demyelination with sparing of axis cylinders was noted.

Experimental induction of allergic encephalitis in animals revealed that when a given sensitizing agent was introduced together with steroids, the animal did not develop encephalitis and no perivascular demyelination or other histopathological changes characteristic of allergic encephalitis were found at autopsy. When the sensitizing agent was introduced alone, the subsequently given steroids did not prevent the development of mentioned changes, and the animal died.

In clinical practice, admitting hyperergy as a basis of pathogenesis in measles encephalitis, steroids, given as a rule after the onset of specific histopathological changes in brain tissue, should be of no value.

In our group, the use of steroids in the therapy of measles encephalitis was started in 1958. Since then 21 patients (63 per cent) were given steroids. No control studies were done. In all 21 patients, receiving steroids sometimes for two or more weeks, no serious side effects were noted in the last seven years.

Late sequelae were noted in 52 per cent of patients on symptomatic and supportive treatment, compared to only 20 per cent of patients on steroids.

SUMMARY

This report is based on an epidemiological study of 60 patients admitted to the Rhode Island and Charles V. Chapin hospitals and clinical evaluation of 50 patients treated at the Charles V. Chapin hospital for measles encephalitis. In Rhode Island the incidence of measles encephalitis in the years 1958-64 was double that of the years 1937-52. The highest incidence was found in the early school age group, and especially in females. The case fatality rate of measles encephalitis in the years April 1957-April 1965 was one-fifth that reported in the 1937-1952 series.

Late sequelae were found in 52 per cent of the patients treated symptomatically, but in only 20 per cent of those on steroids. No side effects of steroid treatment were observed.

ACKNOWLEDGEMENT

The author acknowledges the invaluable encouragement, assistance, and advice of Dr. Edward J. (Continued on Page 43)

MILITARY MEDICAL BENEFITS ACT OF 1966

Enacted on September 30, 1966

Public Law 89-614 (H. R. 14088)

BENEFITS FOR RETIRED PERSONNEL IN VA FACILITIES

The law amends the Military Dependents Medical Care Act to provide that under joint regulations of the Secretaries of Defense and HEW, in addition to members or former members of the uniformed services, a retired reservist is entitled to be given medical and dental care in any facility of a uniformed service, subject to the availability of space and personnel. Further, under an agreement with the Administrator of Veterans' Affairs, the Secretaries may provide care for a member or former member of a uniformed service who is entitled to retired or retainer pay or its equivalent in VA facilities which the Administrator determines to be available, on a reimbursable basis at rates approved by the Bureau of the Budget.

MEDICAL CARE FOR DEPENDENTS IN FACILITIES OF THE UNIFORMED SERVICES

The law amends the provision of existing law relating to benefits to be provided military dependents in facilities of the uniformed services to include dependents of retired reservists and to authorize the following care: (1) hospitalization; (2) outpatient care; (3) drugs; (4) treatment of medical and surgical conditions; (5) treatment of nervous, mental and chronic conditions; (6) treatment of contagious diseases; (7) physical examinations including eye examinations and immunizations; (8) maternity and infant care; (9) diagnostic tests and services, including laboratory and X-ray examinations; (10) emergency dental care worldwide; (11) routine dental care outside the U.S. and at stations in the U.S. where adequate civilian facilities are unavailable; (12) dental care worldwide as a necessary adjunct of medical, surgical or preventive treatment; (13) ambulance service and home calls when medically necessary; (14) durable equipment such as wheelchairs, iron lungs, and hospital beds on a loan basis.

The following types of care are specifically excluded; (1) domiciliary or custodial care, and (2) prosthetic devices, hearing aids, orthopedic footwear and spectacles. However, outside the U.S. and at stations inside the U.S. where adequate civilian facilities are unavailable these devices may be sold to dependents at cost. Further, artificial limbs and artificial eyes may be provided.

As under existing law, the Secretary of Defense,

after consultation with the Secretary of HEW, must prescribe fair charges for inpatient medical and dental care given to dependents. The charge or charges prescribed must be applied equally to all classes of dependents.

HEALTH INSURANCE FOR DEPENDENTS OF MEMBERS OF UNIFORMED SERVICES

The provisions of existing law relating to contracts for medical care for dependents of members of the uniformed services who were on active duty for more than thirty days are amended to provide all the above-listed services with the following exceptions.

(1) only dental care which is required as a necessary adjunct to medical or surgical treatment could be provided;

(2) routine physical examinations and immunizations may be provided only when required in the case of dependents who are traveling outside the U.S. as a result of a member's duty assignment and the travel is being performed under orders issued by a uniformed service;

(3) routine care of newborn, well-baby care, and eye examinations may not be provided;

(4) under joint regulations prescribed by the Secretaries of Defense and HEW, the services of Christian Science practitioners and nurses and services obtained in Christian Science sanitoriums may be provided;

(5) durable equipment such as wheelchairs, iron lungs, and hospital beds may be provided on a rental basis.

A medical care plan must provide for payment by the patient of the following amounts:

(1) \$25 for each admission to the hospital or the amount the patient would be charged for care in a hospital of the uniformed services (currently \$1.75 per day), whichever is greater;

(2) except as provided below, the first \$50 each fiscal year of the charges for all types of outpatient care and 20% of all subsequent charges for such care during a fiscal year;

(3) a family group of two or more persons may not be required to pay collectively more than the first \$100 of the charges for outpatient care and 20% of the additional charges for such care during the fiscal year.

The methods for making payment will be prescribed in regulations issued by the Secretaries of Defense and HEW.

SPECIAL PROVISION FOR HANDICAPPED DEPENDENTS

The health insurance plans for military dependents must include the following services for a dependent spouse or unmarried child who is moderately or severely mentally retarded or has a serious physical handicap: (1) diagnosis; (2) inpatient, outpatient, and home treatment; (3) training, rehabilitation, and special education; (4) institutional care in private nonprofit, public and state institutions and facilities, and when appropriate, transportation to and from such institutions.

The member of the uniformed services will be required to pay part of the cost of any benefit according to his rank. Members in the lowest enlisted pay grade are required to pay the first \$25 of expenses incurred each month and members in the highest commissioned pay grade are required to pay \$250 per month. The amounts paid by members in all other pay grades will be determined in joint regulations prescribed by the Secretaries of Defense and HEW.

The law provides that the government's share of the costs of any benefits for a particular case may not exceed \$350 per month. Members of the uniformed services will have to pay the amount remaining after the government's maximum share has been reached.

A member who has more than one dependent incurring expenses in a given month for a condition covered under this provision may not be required to pay an amount greater than he would be required to pay if he had only one dependent with such a condition.

Members are required to use public facilities to the extent that they are available and adequate as determined under joint regulations of the Secretaries of Defense and HEW.

HEALTH INSURANCE OF RETIRED PERSONNEL AND THEIR DEPENDENTS

To insure that health benefits are available for retired members of the uniformed services and their dependents (other than a parent) and for the dependents of a member of the uniformed services who died on active duty (other than a parent), the Secretary of Defense, after consultation with the Secretary of HEW, must contract for health benefits under the same insurance, medical service, or health plans he contracts for dependents of active members of the uniformed services. However, the retired individual and his dependent must pay the first \$50 of charges for all types of outpatient care in each fiscal year, and 25% of all subsequent charges for such care during the fiscal year. A family group of two or more persons will not be required to pay more than the first \$100 in a fiscal year for outpatient care and 25% of the additional

charges for such care during a fiscal year. The retired member or his dependent will also have to pay 25% of the charges for inpatient care.

Individuals who are entitled to Medicare benefits will not be eligible for benefits under this program. Further, no benefits will be payable in the case of an individual enrolled in any other insurance or health plan provided by law through employment unless the individual certifies that the particular benefit he is claiming is not payable under the other plan.

A retired member and eligible dependents may elect to receive benefits either in government facilities on a space-available basis or in civilian facilities. However, under joint regulations issued by the Secretaries of Defense and HEW, the right to make this election may be limited for those persons residing in an area where adequate facilities of the uniformed services are available.

CONSTRUCTION OF FACILITIES FOR CARE OF RETIRED PERSONNEL AND THEIR DEPENDENTS

The law authorizes the provision of space for inpatient and outpatient care in facilities of the uniformed services for retired persons and their eligible dependents. The amount of space programmed is limited to that amount determined by the Secretary of the service involved to be necessary to support teaching and training requirements in uniformed service facilities. However, space may be programmed in areas having a large concentration of retired members and their dependents where there is also a projected critical shortage of community facilities.

The provisions of the law become effective on January 1, 1967, except that those relating to outpatient care for dependents in civilian facilities became effective on October 1, 1966.

MEASLES ENCEPHALITIS

(Continued from Page 41)

West, Superintendent of the Charles V. Chapin Hospital, Providence, R. I.

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(Continued on Page 60)

NECROLOGY, 1966—THE RHODE ISLAND MEDICAL SOCIETY

JAMES F. BOYD, M.D.

James F. Boyd, M.D., of 58 Wayside Drive, Cranston, died September 29, 1966 at the Health Haven Nursing Home in East Providence. He was 86 years of age.

Born in Taunton on November 3, 1880, Doctor Boyd graduated from Tufts Medical School in 1911 and he served his internship at St. Joseph's Hospital. After four years of general practice in Brockton, Doctor Boyd returned to Providence where he was later named director of the X-ray Departments at Rhode Island Hospital, St. Joseph's Hospital, and Memorial Hospital in Pawtucket. He was a consultant at Providence Lying-In Hospital, South County Hospital and Woonsocket Hospital. He retired from practice in 1959.

He was a diplomate of the American Board of Radiology and he was a member of the New England Roentgen Ray Society, the Rhode Island Radiological Society, the Providence Medical Association, the Rhode Island Medical Society, and the American Medical Association.

WILLIAM P. DAVIS, M.D.

William P. Davis, M.D., former chief surgeon at two Rhode Island hospitals, died Friday, June 24, 1966, at Jane Brown Hospital at the age of 67.

Born in Denver, Colorado, on November 25, 1898, Doctor Davis attended the University of Colorado, and he received his medical degree from the University of Michigan Medical School in 1923. He completed his internship at Rhode Island Hospital.

During World War II Doctor Davis served in the Pacific theater as a commander in the U.S. Navy. Active in many national, state and regional medical associations, Doctor Davis served as chief surgeon at Rhode Island Hospital from 1947 to 1950 when he became chief surgeon at Memorial Hospital in Pawtucket until 1954.

He also served as a member of the board of directors of the Blue Cross Corporation of Rhode Island and he was a consultant at five Rhode Island hospitals. He was a member of the Providence Medical Association, and the Rhode Island Medical Society, and the American Medical Association.

GUYON G. DUPRE, M.D.

Guyon G. Dupre, M.D., the first administrator of Mercy Hospital in North Smithfield, died Sunday, June 19, 1966, in Sarasota, Florida.

Born in Worcester, on May 16, 1903, he received a bachelor of arts degree from Assumption College in 1924 and a doctor of medicine degree from Boston University in 1928. Doctor Dupre began practicing in 1930 and in 1932 he was elected city physician. A former president of the Woonsocket District Medical Society, he served with the Woonsocket Board of the Office of Price Administration during World War II. In 1942 Doctor Dupre was named to the Rhode Island Blue Cross Corporation and was elected to the post of administrator of Mercy Hospital in 1954.

Doctor Dupre was a former president of the Woonsocket Kiwanis Club and he was a member of the Woonsocket Lodge of Elks. He was also a member of the Rhode Island Medical Society.

JOSEPH H. DWINELLE, M.D.

Joseph H. Dwinelle, M.D., Director of Physical Medicine and Rehabilitation at Rhode Island Hospital, died Monday, March 21, 1966.

Born in Auburn, New York, on January 5, 1905, Doctor Dwinelle was a graduate of the University of Buffalo Medical School. He interned at Mercy Hospital in Buffalo, New York. He served as a member of the staff of Auburn Memorial Hospital before coming to Rhode Island.

Doctor Dwinelle served as a lieutenant colonel in the Army during World War II.

He was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association, and the Auburn, New York, Lodge of Elks.

ANTONIO G. FIDANZA, M.D.

Antonio G. Fidanza, M.D., who initiated the state's pre-marital and pre-natal blood test laws, died Monday, December 19, 1966. He was 79.

Born in Wilmington Delaware, on February 22, 1887, he attended the University of Delaware and he received his medical degree from the Medical College of Virginia in 1908, where he also interned. Shortly thereafter Doctor Fidanza came to Providence and established his medical practice.

He served as a representative in the old Providence Common Council from 1925 to 1929. In 1930 he was made a Knight of the Roman Catholic Church by Pope Pius XI. From 1937 to 1941 Doctor Fidanza served as Senator from Johnston. It was in 1938 that, after a vigorous campaign, he succeeded in getting the General Assembly to pass the blood test laws. After serving as chief obstetri-

cian at St. Joseph's Hospital and president of the medical staff, he retired in 1941.

Doctor Fidanza was actively interested in the Johnston District Nursing Association and he served as Johnston town physician at one time. He was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association, the New England Obstetrical and Gynecological Society, Hope Council, Knights of Columbus, and he was a former president of the St. Vincent de Paul Society.

RAYMOND F. HACKING, M.D.

Roymand F. Hacking, M.D., an ophthalmologist, died April 13, 1966, at Jane Brown Hospital. He lived at 130 Catlin Avenue, Rumford.

Born in North Smithfield on April 13, 1897, Doctor Hacking was graduated from Georgetown University in 1921 and from the Medical College of Virginia in 1925. He served both his internship and residency at the Massachusetts Eye and Ear Infirmary from 1925 to 1927, and he became a diplomate of the American Board of Ophthalmology in 1936.

He served as a lieutenant in the Army field artillery during World War I.

Doctor Hacking was a consultant in ophthalmology at Memorial Hospital, Pawtucket, and also at Rhode Island Hospital, Lying-In Hospital, Dr. U. E. Zambarano Memorial Hospital, the Notre Dame Hospital, and the State Medical Center. He was the supervising ophthalmologist for the State of Rhode Island for many years.

He was a member of the American Medical Association, the Providence Medical Association, the Rhode Island Medical Society, the Pawtucket Medical Association, the New England Ophthalmological Society, the Rhode Island Ophthalmological Society, the Pan-American Ophthalmological Association, and the executive staff of the Pawtucket Memorial Hospital.

Doctor Hacking was a past president of the Rhode Island Ophthalmological Society and the Memorial Hospital Staff Association, Pawtucket. He was also a member of the Rhode Island Historical Society and the Providence Lodge of Elks.

WALTER E. HAYES, M.D.

Walter E. Hayes, M.D., of 1103 Cranston Street, Cranston, died unexpectedly on Saturday, December 10, 1966. A former health superintendent in Cranston, he was 54.

Born in Cranston on January 11, 1910, Doctor Hayes was graduated from Cranston High School, Providence College, and Loyola University in Chicago. He also studied at Harvard and New York Universities. He was a major in World War II. From 1961 to 1963 he served as health superintendent of Cranston.

Doctor Hayes was an attending physician on the staffs of St. Joseph's, Roger Williams, Our Lady of Fatima, and Miriam Hospitals. He was past president of St. Joseph's Hospital staff and a member of the Rhode Island Chapter, American Academy of General Practice, The Rhode Island Medical Society, Providence Medical Association, and American Medical Association.

CRAIG S. HOUSTON, M.D.

Craig S. Houston, M.D., a former chief of staff of the Providence Lying-In Hospital and a past president of the New England Obstetrical and Gynecological Society, died February 22, 1966, at Rhode Island Hospital at the age of 67. He made his home at 92 Columbian Avenue, Edgewood.

Born in Gilford, Maine on December 31, 1899, he was graduated from Bowdoin College in 1920 and from Harvard Medical School in 1924. He interned at Rhode Island Hospital.

Doctor Houston was a former chief of gynecological services at the Rhode Island Medical Center, an emeritus fellow of the Obstetrical Society of Boston, a clinical professor of Tufts Medical School and an instructor of obstetrics at Harvard Medical School. He was a former member of the active staff of the gynecological department of Rhode Island Hospital, and he was a member of the consulting staff at that hospital until his death. He was also a former member of the staff of Roger Williams General Hospital. Doctor Houston was a member of the American Board of Obstetrics and Gynecology, the Rhode Island Medical Society, the Providence Medical Association, and the American Medical Association.

WILLIAM H. JORDAN, M.D.

William H. Jordan, M.D., a pediatrician since 1901 and Rhode Island's oldest active physician until his retirement in December, 1964, died Sunday, May 21, 1966 at Kent County Memorial Hospital.

Born in Woonsocket on May 18, 1874, Doctor Jordan received his medical degree in 1901 from Maryland Medical College. He interned for a time at the U.S. Marine Hospital in Baltimore. He studied pediatrics at Harvard University from 1905-1907 and in Europe in 1911. From 1906 to 1924 Doctor Jordan served as pediatrician to the St. Vincent de Paul Home and from 1906 to 1936 at Rhode Island Hospital.

He was a member of the Tyler-Providence Council, Knights of Columbus; the Bishop Hendricken Assembly, 4th Degree Knights of Columbus; and the Providence Medical Association, the Rhode Island Medical Society, and the American Medical Association.

(Continued on next page)

EDWARD A. KOSTYLA, M.D.

Edward A. Kostyla, M.D., of 14 St. Mary Street, West Warwick, died unexpectedly Monday, November 21, 1966. A practicing physician in West Warwick for 25 years and former chairman of the Coventry school committee and member of the Coventry town council, he was 54.

Born in Anthony, Rhode Island, on October 9, 1912, Doctor Kostyla graduated from Providence College in 1934 and from Jefferson Medical College in Philadelphia in 1938. He served his internship at the New Britain General Hospital in Connecticut.

Doctor Kostyla was a member of the state Democratic central committee and a former Kent County Medical Examiner. He was a member and past president of the Kent County Medical Society, a member of the Rhode Island Medical Society, and the American Medical Association. He was also the physician for the Coventry schools for many years.

J. BREWER MARSHALL, M.D.

J. Brewer Marshall, M.D., 70, of Louisquisset Pike, Lincoln, died January 24, 1966, at his home.

Born in Ashton on June 29, 1895, Doctor Marshall was graduated from Brown University in 1918 and later from Tufts Medical School. He practiced medicine for 40 years and he was on the staff of Memorial Hospital in Pawtucket, Notre Dame Hospital in Central Falls, and Roger Williams General Hospital in Providence. He served with the Navy during World War I.

Doctor Marshall was a member of Mount Moriah Lodge, F. & A.M., of Lime Rock, the National Sojourners, the First Light Infantry Veterans of Providence, Henrietta I. Drummond Post, American Legion, of Pawtucket; Lime Rock Chapter, Order of Eastern Star; the TK Club of Pawtucket, and Clan Fraser, O.S.C., of Pawtucket.

He was past president of the Blackstone Valley Historical Society and a communicant of Grace Episcopal Church, Providence. He was a member of the Pawtucket Medical Association and the Rhode Island Medical Society.

HENRY B. MOOR, M.D.

Henry B. Moor, M.D., veteran staff member of Memorial Hospital, Pawtucket, and its chief of surgery from 1943 to 1950, died January 3, 1966, at the age of 77. He lived at 147 Angell Street.

Born in Waterville, Maine, on January 7, 1888, Doctor Moor attended Coburn Classical Institute and he graduated with a B.S. degree from Colby College in 1910. After graduating cum laude from Harvard Medical School in 1914 he interned at Rhode Island Hospital.

He began specializing in general surgery in 1921, and he served in the outpatient departments of Rhode Island Hospital and St. Joseph's Hospital. He had served as assistant and associate surgeon before becoming chief of surgery at Pawtucket Memorial Hospital.

Doctor Moor was a founder-fellow of the Providence Surgical Society, and he served as its president in 1955. He was a surgeon at the state infirmary from 1938 to 1943, and an associate surgeon at Roger Williams General Hospital for most of his career.

Doctor Moor was elected to fellowship in the American College of Surgeons in 1931. He was also a member of the Providence Medical Association, the Rhode Island Medical Society, and the American Medical Association.

JAMES M. PARKINSON, M.D.

James M. Parkinson, M.D., died March 3, 1966 at his home at 497 Hope Street. He retired in 1949 after practicing medicine in Providence for more than 50 years.

Born in Norwich, Connecticut, on January 27, 1873, Doctor Parkinson graduated from the college of Physicians and Surgeons of Columbia University in 1903. He interned at Manhattan State Hospital and New York Lying-In Hospital before coming to Providence.

He was physician and surgeon for Brown & Sharpe Manufacturing Company for 25 years, and he also had served on the staffs of Roger Williams General Hospital, Memorial Hospital in Pawtucket, and Rhode Island Hospital.

Doctor Parkinson was a member of the American Medical Association, the Providence Medical Association, the Rhode Island Medical Society, and the Rhode Island Medical-Legal Society.

CHARLES L. PHILLIPS, M.D.

Charles L. Phillips, M.D., of 294 Main Street, East Greenwich, died Thursday, September 29, 1966, in Brunswick, Maine. He was 81.

Born in Lewiston, Maine, on April 30, 1885, Doctor Phillips was a 1906 graduate of Bates College and he was a past president of its alumni association. He graduated from Harvard Medical School in 1910 and opened his private office in East Greenwich in 1913 after interning at Boston City Hospital and Rhode Island Hospital.

Doctor Phillips was a member of the Kent County Medical Society, the Rhode Island Medical Society, and the American Medical Association.

PAUL J. ROZZERO M.D.

Paul J. Rozzero, M.D., a practicing physician in Providence for 28 years, died Saturday, July 16, 1966, in St. Joseph's Hospital.

Born in Providence on October 16, 1910, Doctor Rozzero graduated from Providence College in 1932 and from the Georgetown Medical School in 1936. After serving his internship in Providence Hospital, Washington, D.C., he began his practice in Providence. Industrial physician for more than 20 years at several Rhode Island plants, Doctor Rozzero received his fellowship in industrial medicine in 1961.

He was a member of the medical staffs of St. Joseph's and Our Lady of Fatima Hospitals. He was also a member of the New England Industrial Medical Association, of which he was past president and councillor, the American Academy of General Practice, the Providence Medical Association, the Rhode Island Medical Society, and the American Medical Association.

LEE G. SANNELLA, M.D.

Lee G. Sannella, M.D., of 265 Waterman Street, Providence, died Thursday, November 17, 1966, at Rhode Island Hospital. An eye surgeon who had practiced in Providence since 1941, Doctor Sannella was 56.

Born on December 18, 1909, in Monson, Massachusetts, he graduated from Brown University in 1930 and from Boston University Medical School in 1934. He interned at Rhode Island Hospital from 1935 to 1937 and he was night superintendent there from 1937 to 1939. Doctor Sannella was resident surgeon at Newark Eye and Ear Infirmary from 1939 to 1940 and at St. Luke's Hospital in New York City from 1940 to 1941, after which he returned to Providence to engage in private practice.

Doctor Sannella was vice president and one of the founders of the Rhode Island Society for the Prevention of Blindness. He served as senior surgeon on the staff of Rhode Island Hospital's Department of Ophthalmology. He was also surgeon at Miriam and Kent County Hospitals and he was consulting ophthalmologist to Memorial Hospital, Emma Pendleton Bradley Hospital, St. Elizabeth's Home and the R.I. Baptist Home.

He was a past president of the R.I. Ophthalmological Society, a Fellow of the American College of Surgeons and a member of the American Academy of Ophthalmology and Otolaryngology, the New England Ophthalmological Society, the Pan-American Association of Ophthalmology, the American Association of Ophthalmology, the XX International Congress of Ophthalmology, the Rhode Island Medical Society, the Providence Medical Association, and the American Medical Association. He also had served as a member of Governor Chafee's Medical Advisory Commission.

JOSEPH E. SEABRA, M.D.

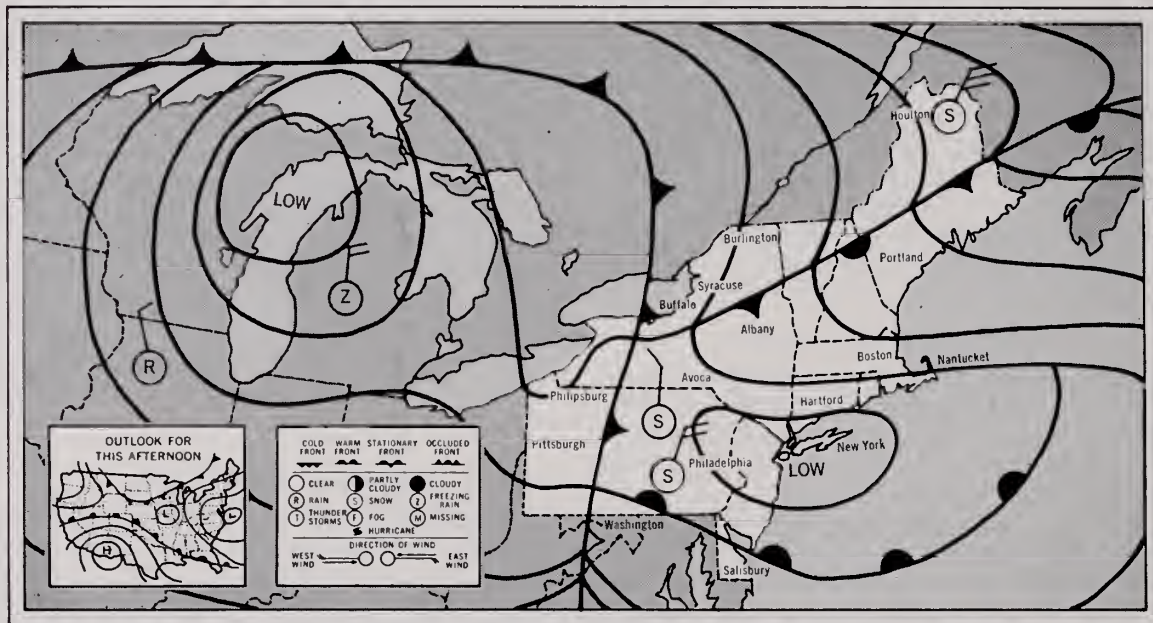
Joseph E. Seabra, M.D., of 208 Broad Street, Pawtucket, died Sunday, September 4, 1966.

Born in Lisbon, Portugal, on October 23, 1917, Doctor Seabra received his medical degree from the University of Lisbon in 1946. He interned at the University Hospital in Lisbon from 1946 to 1947 and at St. Elizabeth Hospital, Elizabeth, New Jersey, from 1948 to 1949.

Doctor Seabra was a member of the Pawtucket Medical Association and the Rhode Island Medical Society.

REGIONAL WEATHER FORECAST

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Tussagesic breaks up coughs, quickly clears stuffed and runny noses and relieves aches and pains. Provide coverage of the tough cold for up to 24 hours with just a single timed-release tablet dosed morning, midafternoon and at bedtime.

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Dextromethorphan hydrobromide	30 mg.
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Dosage: Adults—1 tablet, swallowed whole to preserve timed-release feature, in morning, midafternoon and at bedtime. **Side effects:** Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. **Precautions:** The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

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THE SMOG WARNING

The recent air pollution crisis in New York and in other cities of the eastern coast dramatized the urgent need to obtain effective measures on a federal and local level. A stage one alert in New York City caused twenty-five electric generating plants and other major industries to curtail their operations in order to decrease the rapidly rising pollution index. The individuals most susceptible to the noxious affects of sulphur, nitrogen, and carbon oxides, the major constituents of air pollution, are those afflicted with asthma, emphysema, chronic rhinitis, and sinusitis, and the elderly with cardiovascular disorders. The magnitude of the population involved is manifested by the fact that 5 per cent of the general population suffer from asthma. When the frequency of these other disorders are added to that of asthma, it becomes apparent that over 25 per cent of the population is oversensitive to elevations of air pollution.

Federal and local measures thus far appear inadequate. Although several important steps have been taken in air pollution, gaping inconsistencies are apparent. For example, according to new federal regulations, all new 1968 model cars must meet specified standards of exhaust control. Any high school student knows that it is not the new cars that contribute most of the air pollution from automobiles but old cars, especially "oil burners." The

thick black smoke from some of these old cars is not only a respiratory hazard but also a frightening traffic hazard by obscuring the vision of innocent drivers behind them.

At the local level few communities in the state have smoke control ordinances. Burning of leaves is still a widespread practice. Smoke from leaves has an additional peril in that it releases thousands of mold spores in the atmosphere, especially *Alternaria*. Some asthmatics are so sensitive to this mold, as demonstrated by skin tests, that the sequelae is an immediate and severe episode of bronchospasm.

A new and important step for air pollution control in Rhode Island is the assigning of this responsibility to the state health department, effective January 1, 1967. The sum appropriated for this new assignment for the first six months is \$16,000, a figure much too low in relation to the job needed to be accomplished, such as surveys, air-sampling, and enforcement of regulations. The assigning of this responsibility to the health department creates a broad base and increased prestige for the control of air pollution. What is needed at this time is experienced personnel. We urge the appointment of an air pollution control officer knowledgeable in this field.

GENERIC DRUGS ARE BIG BUSINESS

One of the largest and most successful counterfeiters of brand name drugs on record was a fellow named Peter I. Copycat who specialized in faking drugs. Before his five year business operation was finally stopped, he is said to have cleared about \$500,000 by forging close to 10,000,000 Reliable Research Inc., brand name drugs.

At his New York trial, in which he answered indictments on nineteen counts of faking drug ingredients and pleaded guilty to five, Reliable Research Inc. divulged that Peter I. Copycat had distributed more drugs overseas than did Reliable Research. Catching Peter took almost two years of intensive investigation. Even so, it was a lucky break which led to the cracking of the case. Reve-

nuers, responding to a tip, stumbled upon a collection of dyes for making trademarks, which were eventually tied in with Peter's operation. Such ventures, aside from being costly to the public, are also a threat to their safety.

While this incident may be a bit fanciful, it is an accurate reflection of cases actually prosecuted by the Food and Drug Administration. The practice of rebottling and fraudulently labeling cheaper generic named drugs and selling them as higher priced name brands is a practice that has been reported in trade journals and the press on a number of occasions. Besides its unethical and unscrupulous aspect, it can be a genuine threat to health and

(Continued on next page)

safety. Physicians should be aware of this vicious practice and the risks involved to their patients when they prescribe or dispense possibly inferior or even dangerous products offered at bargain prices.

Pharmaceutical know-how, as developed by the large reputable and well-financed ethical drug firms, involves complicated and sometimes subtle factors. Among these are the potency of drugs, compatability, purity, sustained release mechanisms and enteric coating, tablet disintegration time, solubility, particle size, choice of vehicle or base, quality of active ingredients, allergies and irritations, isotonicity, caloric values, melting point, surface tension, viscosity, ease of application and renewal, and flavor. More technical factors, such as research and development effort, quality and manufacturing control, packing research, storage, and control numbers, are all factors that require a large, responsible, and well-financed organization.

There are a number of misconceptions held by those who promote the doctrine of generic equivalence. There is much convincing evidence that pharmaceutical products having the same generic names may not actually be equivalent. To give an example, two tablets having the same dosage of a drug may be absorbed at entirely different rates. A U.S.P. label defines a minimum, not a maximum, standard. Ethical preparations frequently utilize superior ingredients in formulation of the dosage form. All drugs are not necessarily subjected to the same quality controls. Manufacturing techniques and equipment may vary greatly. Sanitary control is as important as the measured activity of the major component and the quality of the carrying agents.

MEASLES ENCEPHALITIS

An excellent paper on measles encephalitis published in this issue emphasizes the crippling effect of this complication of a disease popularly considered as a benign childhood illness. Although some improvement in the incidence and severity of sequelae has occurred over the years (possibly attributable to the use of steroids), the most effective prevention is the eradication of measles.

ASPHALT TRUCK DRIVER

This is the case of a 66-year-old asphalt truck driver who entered the hospital complaining of "soreness on sitting" and SOB. Four days PTA he was kicked in the rear of his truck and fell on his asphalt. Unable to sit down, his daughter brought him to the hospital, who had hurriedly left a PTA meeting.

Past history was unremarkable except for a daily intake of a quart of Old Granddad for the past 50 years.

A drug from an unknown manufacturer may produce reactions not expected from one obtained from a known and recognized source.

The manufacture of drug products thus is a complex procedure with many factors influencing the efficacy of the finished product. The reputable manufacturer not only exercises rigid control throughout each phase of his manufacturing procedures, but tests his products clinically before he begins commercial production. Thus he knows that his formulations yield the claimed therapeutic results.

Advocates of the use of drugs by generic names claim that there would be substantial savings if inexpensive non-trade-name pharmaceuticals were purchased with government funds. Does this give Peter I. Copycat free rein to ride the coat-tails of the manufacturer who has devoted much care and study to assure that his products will give proper results?

Let us hope that the lesson is not lost. Research generates progress. Restrictions and protectionism beget stagnation and mediocrity. While we may not sacrifice all progress by this unwise approach, improvement in world health may be seriously retarded. American drug manufacturers and the United States government must cooperate to further continued growth in this vital and important industry.

Physicians cannot afford to take chances with their patients. Any interference with the physician's prerogative of prescribing what his judgment dictates, or the pharmacist's responsibility to fill the prescription exactly as written, is inimical to the public's health and welfare.

Fortunately the tools for the prevention of measles are now available, and Rhode Island has been in the vanguard of the battle nationally with its measles immunization program. The price of continued success, however, is eternal vigilance. Unlike live polio immunization, there is no built-in propagation of virus. We must sustain our anti-measles advantage by regular immunization of each new class of children.

Physical examination-wise there was little pathology. There was also very little physiology. He complained bitterly, however, of the old SOB.

Laboratory-wise, except for a reduced PTA, he was entirely negative. The PTA could not have been reduced or his daughter would not have gone to the PTA meeting in the first place.

His course in the hospital was characterized by a rapidly rising gorge. He just couldn't get over that old SOB. Because of the combination of fall-

ing on his asphalt four days PTA and his low PTA, he developed a hematoma as far as the eye could see. A surgeon was called in consultation. He said: "This man has had a bleed. Let us go ahead and operate," and he went ahead and operated. Rejoicing, he drained a large hematoma very widely. Bleeding somewhat after surgery, the surgeon treated him for shock. Fortunately he was not again troubled by the old SOB. Following several transfusions of TLC, all meaningful parameters normalized and he stabilized. After a smooth con-

valence he was transferred back to his medical man. He was on Medicare. This patient was 66 years old. During his last few days in the hospital he was entirely well, except for frequent trips to the men's room where a floating crap game was in progress. He has been followed for an average of three weeks. He smokes 2½ packs a day.

Glossary

SOB: Shortness of breath

PTA: Prior to admission; prothrombin activity;
parent-teachers association

TLC: Tender loveing care

THE JANE BROWN NORTH WING

We commend the Trustees of the Rhode Island Hospital for their decision to build a five million dollar addition to the Jane Brown Memorial Hospital. They have acted wisely in helping to meet an already acute bed shortage about which this Journal has long been concerned.

In no small way the decision to enlarge the Jane Brown Memorial is a personal tribute to its Director, Nellie V. Hughes. She has already received much recognition in the form of "Love Letters to the Jane Brown," a feature article in the "Rhode Islander Magazine," and an honorary degree from Brown University. Under the personal direction of

Nellie V. Hughes the Jane Brown has become an outstanding private care hospital and a model of the best in the tradition of nursing, both personal and professional. It has been a happy place for patients, for physicians and, judging by the incredible devotion and loyalty of its nursing staff, a true source of satisfaction for all.

Nothing could be more appropriate than to name this new wing, or at least a major component of it, in honor of the woman who has contributed so much to the success of the pavilion which she has administered and in which she has left the imprint of her special qualities.

THE REGISTERED MEDICAL TECHNOLOGIST AND THE CERTIFIED LABORATORY ASSISTANT

Schools for the training of technologists and laboratory assistants have been established in a number of hospitals in this country. There are five in Rhode Island. These train two categories of laboratory personnel. The Registered Medical Technologist (ASCP) has had a minimum of three years of college, which included 16 semester hours of biologic sciences and a one-year hospital training program with lectures and clinical laboratory experience under supervision. A number of these programs are cooperative between hospitals and colleges so that the student earns a B.S. degree upon completion of the hospital training program. In addition, the medical technologist takes a qualifying examination in all phases of laboratory work given by the Registry of Medical Technologists. Upon passing this examination of the American Society of Clinic Pathologists (ASCP), the student is classified as a registered Medical Technologist. The training program in hospitals must be accredited by the Board of Schools jointly sponsored by the American Society of Medical Technologists and the American Society of Clinical Pathologists.

Another group of certified laboratory personnel has been established. These are classified as Certified Laboratory Assistants (formerly, techni-

cians). This program requires high school graduation and a year's training in a hospital laboratory approved by the Certified Laboratory Assistants Board composed of pathologists and technologists. Upon completion of the course, the laboratory assistant student also takes a qualifying national examination administered by the Board of Certified Laboratory Assistants. These students are trained to do the routine work of the laboratory, particularly in the areas of hematology and urinalysis, and under the supervision of a medical technologist.

The registered medical technologist with collegiate training in the biological sciences assumes laboratory positions of responsibility, performs special and unusual laboratory procedures, and supervises and teaches personnel with lesser training who thus may be usefully employed for much of the routine work. The medical technologist may proceed toward earning a more advanced degree in a specialty (for example, microbiology), enabling the recipient to hold key supervisory positions in hospitals or in research laboratories.

In the Rhode Island area Salve Regina College, Southeastern Massachusetts Technical Institute, and the University of Rhode Island are affiliated with hospital laboratory teaching programs. Rhode

Island College is studying the feasibility of such a program.

Approved training programs exist at the Memorial Hospital in Pawtucket, Newport Hospital, Rhode Island Hospital, Saint Joseph's Hospital, and the State of Rhode Island Medical Center.

Commercial schools not affiliated with hospital laboratories have been established for the training of laboratory personnel. These are not accredited with the Board of Schools of the American Society of Medical Technologists and the American Society of Clinical Pathologists and do not have the sanction of the American Medical Association. Unfortunately, there is confusion of names of societies and titles derived from these non-accredited schools. The name of the professional organization for per-

sons trained in this fashion is the American Medical Technologists (MT).

Individuals trained in the program for technologists sponsored by accredited universities, the American Medical Association, the American Society of Medical Technologists, and the American Society of Clinical Pathologists may be identified by the abbreviation (ASCP) after their title. Approved training for the high school graduate is indicated by the initials, C.L.A. (Certified Laboratory Assistant).

Members of the medical profession should urge young men and women to enter this useful career. The severe shortage of laboratory personnel, as reported editorially in this Journal last month, assures almost certain employment.

THE IDENTITY OF PANCREATIC SECRETIN AND GASTRIC INHIBITOR

As early as 1906 Edkins had postulated that stimulation of the gastric antrum caused liberation of a hormone (gastrin) responsible for the second or gastric phase of gastric secretion. Proof of this hormonal mechanism was confirmed some 40 years later by Grossman in the laboratory of A. C. Ivy. Over a period of many years Dragstedt in a series of classical experiments has clearly delineated the roles of the vagal and antral phases of gastric secretion in gastroduodenal ulceration.

The existence of an intestinal mechanism of gastric inhibition has long been recognized. The theory was propounded that it was mediated through an inhibiting hormone (or chalone) secreted by the duodenum and upper intestine. This substance was given the name enterogastrone. The nature of enterogastrone has never been clearly defined. In view of recent developments there is serious doubt if such a substance does, in fact, exist.

At approximately the time that gastrin was recognized, Bayliss and Starling (1902) demonstrated the existence of a pancreatic secretagogue which originated in the duodenum and to which they gave the name secretin. As long ago as 1925 Mellanby had indicated that secretin was a polypeptide.

Prior to 1957 Dragstedt had suspected that the humoral agent released from the duodenum and having the power of inhibiting gastric secretion might well be pancreatic secretin. When a fairly pure form of secretin was made available (Eli Lilly and Co.), he and Greenlee carried out experiments designed to clarify this point. Using animals having both a pancreatic fistula and vagus denervated Heidenhain pouch, they found that intravenous injection of the substance did inhibit secretion of gastric juice from the pouch while simultaneously stimulating secretion of pancreatic juice. In other

experiments it was demonstrated that the inhibitory effect was greater on secretion produced by endogenous gastrin than on vagus stimulated gastric secretion. These findings have been confirmed with other commercial preparations (Vitrum of Sweden and a preparation by Boots Pure Drug Co. of England).

Some lingering doubt remained, however, based upon the uncertainty of whether the preparations were of sufficient purity to rule out other active components. This uncertainty has recently been resolved. Jorpes and co-workers of Sweden have now further purified secretin and have determined its amino acid composition. Using a highly purified form of the hormone, at least two groups of workers have confirmed the gastric inhibitory properties of secretin. Jordan has discovered a similar property in cholecystokinin of duodenal origin, which thus far appears to have retained its identity from secretin.

While Dragstedt believes that the "status of enterogastrone is still in some doubt," the experimental basis for its existence becomes increasingly tenuous. It has been interesting to see this episode in physiological detective work unfold over the last sixty years.

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(Concluded on Page 61)

"Take a laxative" is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted. On the other hand, Dulcolax

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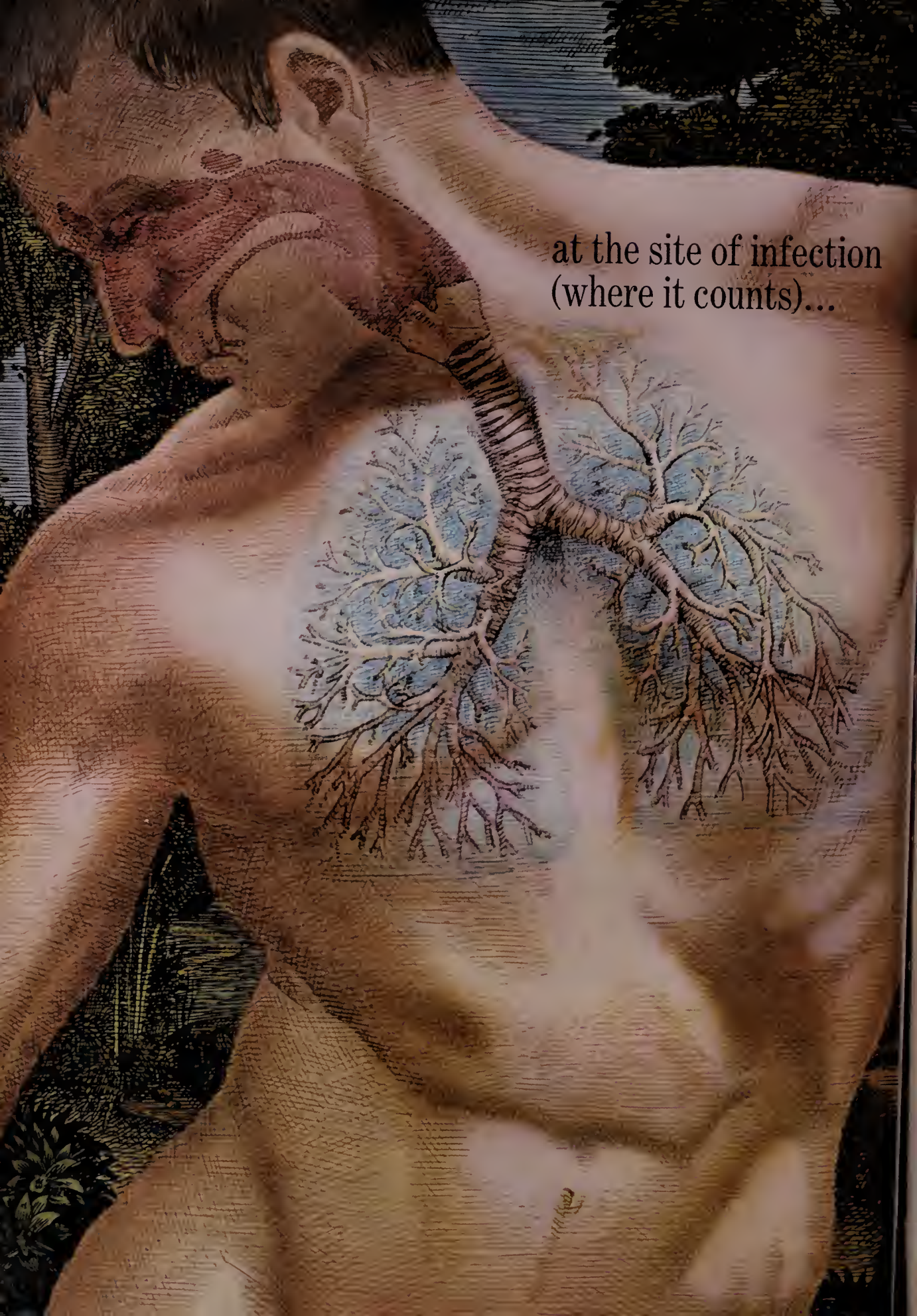
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Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed ... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food¹⁻³

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.^{1,2} Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.^{1,3}

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of

staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Ilosone® 
Erythromycin Estolate

(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone. **Contraindications:** Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to

be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalofluorescence and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, and patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of these patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months as a rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevation of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (ten day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticarial skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®

Ilosone Chewable Tablets

Ilosone Drops

Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days are recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc. size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages

References: 1. Griffith, R. S., and Black, H. R.: *Am. J. M. Sc.*, 247:69, 1966. 2. Griffith, R. S., and Black, H. R.: *Antibiotics & Chemotherapy*, 12:398, 1966. 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: *Am. J. M. Sc.*, 239:198, 1960.

Additional information available to physicians upon request.
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REPORT OF ACTIONS OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

20th Clinical Convention, Las Vegas, Nevada, November 27-30, 1966

ARTHUR E. HARDY, M.D., *Delegate*, and EDMUND T. HACKMAN, M.D.,
Alternate Delegate, of the R. I. Medical Society

A critical review and enactment of constructive changes in Medicare and Medicaid, the federal programs stemming from the titles 18 and 19 of the amended Social Security Act, payments for professional services, education for family practice, revisions of the Selective Service System, and the use of the terms "thical" and "unethical," were among major matters discussed and acted upon by the House of Delegates of the American Medical Association at the 20th Clinical meeting held at Las Vegas, Nevada, November 27-30, 1966.

Dr. Charles L. Hudson, AMA president, told the Monday opening session of the House that the need to improve existing services and establish new services for the total population should be a "top priority" of the medical profession. He proposed that the AMA and the state and county medical societies launch a continuing program, under predominantly private auspices, for all persons of whatever age, race, creed or color, and he emphasized that it is "among the needy and formerly indigent that I feel we must show interest, initiative and enterprise."

PUBLIC LAW 89-97

The House adopted a resolution urging that the American Medical Association advise the Department of Health, Education and Welfare that the present requirements for certification and recertification have proven highly objectionable, unnecessary, and do not contribute to the quality of medical care.

It also recommended that the American Medical Association endeavor to bring about repeal of those portions of P.L. 89-97 in which the requirement for physician certification of medical necessity appears.

The resolution concluded by suggesting that the fiscal intermediaries and the American Hospital Association be advised that AMA will be available to assist in the development of appropriate amendments to this legislation. The purpose of this consultation would be to discuss the complexities of the present requirement and to invite participation in the development of amendments to the law which will be professionally acceptable and administratively workable.

The House also adopted a resolution declaring that the AMA strongly support amendment of the Social Security Act, including Title XIX, to permit payments without assignments for medical care of the patient.

The House rejected three resolutions and one report defining usual, customary and reasonable charges. Instead, it adopted a resolution which said that the definitions of the words "usual," "customary" and "reasonable" be considered, within the fundamental framework of individual determination, the responsibility of the constituent state medical societies, with the understanding that the advice and counsel of the AMA be made available to those states requesting such assistance.

PAYMENTS FOR PROFESSIONAL SERVICES

To clarify AMA policies as they now exist, the House adopted the following eight-point statement regarding payment for professional medical services:

"1. It is proper for the physician to establish the fee which he charges to any patient for the professional service rendered, with recognition of the fact that a duly constituted committee of his peers may appropriately review and pass upon the equity and justice of his charge.

"2. It is proper for third party agencies to make payment of professional medical fees in behalf of patients, with recognition of the fact that the service of the physician has been to the patient and the liability for payment rests primarily with the patient or his family.

"3. It is proper for a physician to work cooperatively with other physicians in a team approach to the provision of medical service, with recognition of the fact that each cooperating physician is entitled to compensation according to the value of his services, and that the charges attributable to each physician's service shall be made clearly known to the patient.

"4. It is proper for a physician who provides personal supervision and direction for a physician-in-training to charge for the professional medical service rendered.

"5. A physician should not enter into a contract or agreement with a hospital whereby the hospital acts as the agent for a physician unless it

(Continued on next page)

is with the consent of the physician and of the medical staff. The physician and the medical staff, as principals, should not approve any contract whose terms or conditions are inconsistent with the Principles of Medical Ethics and established policy of the American Medical Association.

"6. Physicians, collectively in hospitals, may properly establish special medical staff funds, wholly under their own control, which they may support as they see fit and disburse as they may agree.

"7. Fees for professional medical services are properly paid only to the responsible physicians and may not be appropriated by any other person or agency.

"8. The physician is the sole arbiter as to the ways in which he may dispose of his professional income, without duress, consistent with the laws of the land and the Principles of Medical Ethics of this Association."

COMPENSATION FOR HOUSE OFFICERS

The House approved the first four sections of a joint report by the Council on Medical Education and Council on Medical Service. Those sections provided new guidelines on the utilization of private patients in teaching programs; recommended principles to govern the assignment of professional responsibility of house officers for the care of paying patients; presented interpretations of

the 1961 statements by the House concerning remuneration of house officers and the increasing responsibility of the medical profession for the development of appropriate methods of financial support for interns and residents, and recommend a statement to guide medical staffs in the development of additional funds to supplement, if necessary, those from hospital sources.

The House then modified or added the final four sections as follows:

E. The presently published provisions for payment under Part A, Title 18, Public Law 89-97 for services rendered to beneficiaries by interns and residents, and under Part B, Title 18, Public Law 89-97 for services rendered by attending physicians supervising interns and residents, are compatible with the organization and administration of programs of graduate medical education according to the standards of the American Medical Association. The principles embodied in these provisions should uniformly apply to regulations governing all other third party medical care plans.

F. It is recommended that sources and amount of compensation for house officers should be determined by local agreement and implemented in accordance with state laws and the ethical principles and policy positions of the American Medical Association.

G. The above principles should be widely publicized so that they may be understood and implemented in good faith by all concerned.

H. The broad and complex nature of the problems in the financial area is recognized, and continued studies and reports thereon by the Council on Medical Service are encouraged. These should include staff compensation, methods of fund collection, control and disposition, and other pertinent and related matters.

EDUCATION FOR FAMILY PRACTICE

Calling it "a document of major importance on a subject of vital significance to the health care of the American public," the House of Delegates endorsed the recommendations of the Ad Hoc Committee on Education for Family Practice and authorized the Council on Medical Education to develop and initiate plans for their implementation. The long report contained the following recommendations:

"A. Major efforts should be instituted promptly to encourage the development of new programs for the education of large numbers of family physicians for the future, as described in the body of this report. The educational programs should relate to all levels of medical education, including pre-medical preparation, medical school education, internship and residency training, and continuing

THE DEPARTMENT OF HEALTH, EDUCATION AND WELFARE HAS SET RIGID REQUIREMENTS FOR THE CERTIFICATION OF CLINICAL LABORATORIES IN REFERENCE TO THE PERFORMANCE OF LABORATORY EXAMINATION ON RECIPIENTS OF THE MEDICARE BILL, INCLUDING SECTION 19.

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medical education. Keynotes should be excellence comparable to programs in other specialties and flexibility to permit the design of programs which will meet the needs and interests of individual physicians.

"B. Medical schools and teaching hospitals should be urged to explore the possibility of developing models of family practice, in cooperation with the practicing profession.

"C. New sources of financial assistance should be developed for the support of family practice teaching programs. Substantial funds should be made available for all aspects of the programs, including the conduct of the educational program, the recruitment and training of full-time faculty, the development of facilities and models of family practice, and the conduct of research in patient care and community medicine.

"D. Recognition and status equivalent to other medical specialties should be given to family practice. An appropriate system of specialty certification should be provided for those who have completed approved educational programs and have demonstrated their competence as family physicians. The graduate program (i.e., internship-residency program) should be an integrated whole, evaluated for accreditation by one body rather than two.

"E. Careful attention should be given to other factors which should make the environment for family practice more favorable and serve as incentives to medical students and young physicians to enter this field.

"F. Careful study should be made of the effect of pre-medical programs and the admission procedures, curricula and student evaluation policies of medical schools upon the production of family physicians."

Delegates and other interested AMA members also attended an open hearing Tuesday morning on the report of the Citizens Commission on Graduate Medical Education, which is similar in many respects to the report of the Ad Hoc Committee on Education for Family Practice. The Commission report is still under study by the AMA Board of Trustees and Council on Medical Education. The House of Delegates urged every physician and medical society to study the report (commonly called the "Millis Report"), to evaluate it and to present comments and critique to the Board prior to the next session of the House.

SELECTICE SERVICE PROPOSALS

The House adopted a report seeking federal legislation to establish a National Commission on Health Resources and Medical Manpower. The

(Continued on next page)

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commission would revise the "doctor draft" system and establish physician allocation priorities to maintain a proper balance of health personnel in civilian and government service.

The report, prepared by the Council on National Security, cited three basic flaws in the Selective Service System as it pertains to the selection of physicians for military service: (1) There is no medical group directing the allocation of physicians; (2) There is no medical group directing the priorities to be used for calling physicians to active duty; (3) There is a need for a stronger medical voice within the Department of Defense.

The proposed commission would be appointed by the President with consent of the Senate. It would replace the Health Resources Advisory Committee and the National Advisory Committee to Selective Service.

USE OF THE TERMS "ETHICAL" AND "UNETHICAL"

The Judicial Council, which had been asked to comment on the use of the terms "ethical" and "unethical," submitted the following report which was adopted by the House:

"Historically, the term 'ethical' has been used in opinions and reports of the Judicial Council and in resolutions adopted by the House of Delegates to refer to matters involving (1) moral principles or practices; (2) customs and usages of the medical profession; and (3) matters of policy not necessarily involving issues of morality in the practice of medicine. The term 'unethical' has been used to refer to conduct which fails to conform to these professional standards, customs and usages, or policies, as interpreted by the American Medical Association.

"Unethical conduct involving *moral principles*, values and duties calls for disciplinary action such as censure, suspension, or expulsion from medical society membership.

"Failure to conform to the *customs and usages* of the medical profession may call for disciplinary action depending upon the particular circumstances

involved, local attitudes, and how the conduct in question may reflect upon the dignity of and respect for the medical profession.

"In matters strictly of a policy nature, a physician who disagrees with the position of the American Medical Association is entitled to freedom and protection in his point of view."

PRESCRIBING OF DRUGS

The House adopted a report by the Board of Trustees reaffirming the position of the AMA regarding the prescribing of drugs. The report states:

"The present policy of the American Medical Association is that physicians should be free to prescribe drugs generally or by brand name for *all* of their patients, whether they are paying, Medicare, or indigent patients — the primary consideration being the best interests of the patient. Medical considerations must be paramount in the selection of drugs. In addition, the physician also has an obligation to be mindful of the economic consequences of the treatment he prescribes."

CHOICE OF A LABORATORY

The House adopted a report of the Judicial Council which answered questions which have been raised about laboratory services. The report stated:

"Medical considerations, not cost, must be paramount when the physician chooses a laboratory. The physician who disregards quality as the primary criterion or who chooses a laboratory because it provides him with low cost laboratory services on which he charges the patient a profit, is derelict in not acting in the best interests of his patient. However, if reliable quality laboratory services are available at lower cost, the *patient* should have the benefit of the savings."

STATEMENT ON CHIROPRACTIC

On recommendation of the Board of Trustees, the House adopted a policy statement submitted by the Committee on Quackery. The statement notes "the position of the medical profession that chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease" and pointed out that "decisions by the nation's highest courts [justify] the medical profession's educational program of alerting the nation to the public health threat posed by the cult of chiropractic."

STATEMENT ON ALCOHOLISM

The House reaffirmed the 1956 policy statement on admission of alcoholics to general hospitals. The statement urged hospital administrators and medical staffs to look upon alcoholism as a medical problem and to admit patients who are alcoholics to their hospitals for treatment, with such admissions being made after due examination, investigation and consideration of the individual patient.

(Continued on Page 58)

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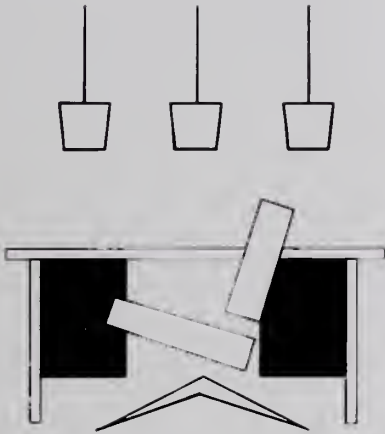
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Wrong! Viet Nam 1966. From N.Y. Times of Oct. 30, 1966, Saigon dateline.

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Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



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AMA CLINICAL SESSION

(Continued from Page 56)

The House, in Las Vegas, recommended more adequate implementation of the 1956 statement and urged that "insurance companies and prepayment plans be encouraged to remove unrealistic limitations on the extent of coverage afforded for the treatment of alcoholism."

OTHER ACTIONS

In considering 63 resolutions, 22 Board reports and a wide variety of additional reports and materials from councils and committees, the House of Delegates also:

Approved establishment of a new *Committee on Continuing Medical Education* but also urged that lines of authority be clearly defined by the Board of Trustees in consultation with the Council on Medical Education in order to avoid duplication of responsibilities already assigned to the Council;

Instructed AMA members of the Joint Commission on Accreditation of Hospitals to express grave concern regarding the accreditation of hospitals in which *laboratories* are directed by non-physicians or physicians not adequately qualified in laboratory medicine.

Passed two resolutions opposing the "*dual fee*" practice of determining the rate of payment for a physician's services solely on the basis of his type of practice;

Approved a Board report recommending that *Social Security* laws be amended so that physicians entering the program for the first time may obtain earlier eligibility and improved benefits;

Recognized the increasing importance of *medical society review committees*, reaffirmed the guidelines published in the November 29, 1965, issue of JAMA and endorsed additional principles recommended by the Council on Medical Service;

Urged continuing, vigorous effort to dissuade local officials from demanding that physicians sign civil rights *compliance statements* that are not required by law for federal directives;

Recommended that state medical societies seek the passage of state legislation which would provide a physician who serves on a *utilization review committee* immunity from litigation arising from the activities of such committees;

Asked that the Board of Trustees direct the Council on Legislative Activities to continue to pursue with committees of Congress the need for amending the *Self-Employed Individuals Tax Act* to provide self-employed individuals with opportunities for deferring current earnings and taxes comparable to opportunities presently enjoyed by employed individuals;

Requested the Bureau of the Budget to modify

the cost accounting system of *Veterans' Hospitals* to permit comparison with cost accounting in community hospitals to the end that economy, efficiency and patient care can be properly assessed in Veterans' Hospitals;

Reaffirmed its support of the principle that every ethical licensed doctor of medicine who needs and desires them should have *staff privileges*, commensurate with his training and skill, in at least one accredited community hospital;

Recommended that each *hospital* should have at least one voting doctor of medicine member on its *Governing Board* who, preferably, should either be appointed or elected by the hospital medical staff from its membership;

Pointed out that there is a definite need for utilization committees and declared that *tax supported hospitals* and private hospitals should be governed by the same utilization standards;

Approved Board recommendations that "the AMA support the need for a significant improvement in the income of the *registered nurse*" and that "the AMA continue to support in principle all current nationally approved educational programs for nurses";

Agreed with the Board that the Council on Postgraduate Program be renamed as the *Council on Scientific Assembly* and that its functions be redefined to enable concentration on AMA scientific meetings;

Adopted a resolution that the AMA take measures to insure the attention of medical societies to the need for appropriate utilization of *retired physicians and inactive nurses*;

Passed a resolution on the determination of *elderly applicants'* eligibility for automobile liability insurance and driver licensure which said that "although physicians are willing to examine applicants and determine whether or not the applicant meets specified physical standards for automobile liability insurance or for licenses to operate motor vehicles, the determination of what standards should be required or whether the driver is insurable and should be licensed to drive is the responsibility of the insurance companies concerned and of the state agencies issuing licenses, respectively";

Endorsed the principle of *free choice* of physician and medical facility under Title XIX of Public Law 89-97;

Urged that the AMA continue to promote constructive legislation improving *existing governmental health plans* and continue to offer constructive advice;

Authorized the Board of Trustees to continue the *AMA Members Disability Program* beyond

(Continued on next page)

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August 31, 1967; make every effort to continue the program with the same premium-benefit structure; clarify the existing program, and, if necessary, renegotiate a revised program which will be financially sound and will provide the best possible benefits and protection for present and future participants;

Approved a Board recommendation that no special section of *The AMA NEWS* be set aside for county society communications, but that news of county society activities continue to be an important part of *The AMA NEWS*;

Agreed with the Board that, effective January 1, 1967, the AMA should discontinue paying for the rental of the *TWX equipment* in state medical society offices;

Recommended that *driver education* should be an integral part of the secondary school curriculum and be offered to all students;

Approved a Council on Medical Service report providing guidelines for collaboration of physician, social worker and lawyer in helping the *unmarried mother* and her child, and;

Referred to the Board, for consideration and appropriate implementation, a resolution urging the AMA to expand its programs and studies in the field of *crime prevention*.

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MEASLES ENCEPHALITIS

(Concluded from Page 43)

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(Concluded from Page 33)

- A Plea for Lung Biopsy. *Mil. Med.* 128:1027, 1963
- ¹⁴Baum, G. L.: The Significance of Candida Albicans in Human Sputum. *New England J. Med.* 263:70, July 14, 1960
 - ¹⁵Kligman, A. M.: Are Fungus Infections Increasing as a Result of Antibiotic Therapy? *J.A.M.A.* 149: 979, July 12, 1952.
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251 Waterman St., Providence, R. I. 02906

ONE SENTENCE ESSAY

People have not yet realized the hypnotic or lotus-like effect of modern social terminology.

... Irvine H. Page, from *Editorial in Modern Medicine*, Oct. 24, 1966

Providence Medical Association

Monday, February 6 —

"Methods of Diagnosis of Coronary Artery Disease and New Therapeutic Approaches"

DAVID LITTMANN, M.D.

of West Roxbury, Mass.

Chief of Medicine, West Roxbury Veterans Administration Hospital.

PANCREATIC SECRETIN AND GASTRIC INHIBITOR

(Concluded from Page 52)

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NEW DISEASES

N. K. Coni of Cambridge, England, (*Brit. Med. J.* 2:808, Oct. 1, 1966) has proposed a new syndrome which he has called Pall-Bearer's Palsy, characterized by transient brachial plexus paralysis in soldiers, following participation in a coffin-bearing detail at a military funeral.

This suggests a whole new series of alliterative syndromes, such as: Apple Picker's Apoplexy, Beer Drinker's Bursitis, Call Girl's Curvature, Drummer's Dermatitis, Ear-bender's Ulalgia, Fun-seeker's Furunculosis, Gin drinker's Gastritis, etc, etc.

IN THE EDITOR'S MAILBOX

To the Editor:

I commend you on your recent series of editorials in the Rhode Island Medical Journal on Highway Safety. I support you fully and feel you should continue.

I am sufficiently concerned about automobile safety to have purchased a car specifically designed to be safe as well as fun to drive, the Rover-2000. American manufacturers should show the same concern.

Sincerely,
William S. Klutz, M.D.
Providence, R.I.

ONE SENTENCE ESSAY

It cannot be assumed that all accepted applicants are more qualified for admission to medical school than all rejected applicants.

...from *Datagrams* (Oct. 1966), published by the Assn. of Am. Med. Colleges

DERMAQUIZ ANSWER

(See Page 9)



The injury is caused by the patient's own teeth. *Morsus humanus*. Self bite. Self biters usually select or prefer only one body area, the nails, one single nail, the sides of the fingertips, the knuckles and relax doing it.



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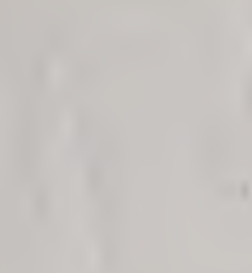
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Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Neomycin rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Neo-Synalar under certain conditions. **Availability:** Neo-Synalar Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

References: 1. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: A manual of cutaneous medicine, Philadelphia, Saunders, 1961. p. 79. 2. Barber, M., and Garrod, L. P.: Antibiotic and chemotherapy, Baltimore, Williams and Wilkins, 1963, p. 111.



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*Brest, A. N., et al.:J. New Drugs 5:329, 1965.

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PUBLIC HEALTH NEWS

Obesity has become a major health problem in the United States and a special health hazard for three obesity-prone groups, according to the Public Health Service.

Quoting a new PHS source book for health professionals, **OBESITY AND HEALTH**, the Service said that the prevalence of obesity in this country is a source of growing medical concern because "fat people are more likely to develop certain diseases and to die at an earlier age than people of normal weight."

Prime candidates for the development of obesity and its attendant association with certain serious disorders and possible early death according to the PHS, are:

1. Children whose relatives are obese: In one study, 73 per cent of 1,000 obese patients had at least one obese parent.
2. Heavily built persons who also have corpulent tendencies: Obese individuals usually have a heavier physique than their non-obese counterparts. Large-boned and thickly muscled persons, particularly adolescents, who fit this description should be watched closely.
3. Persons who are becoming less active, more sedentary: Food intake does not decrease proportionately with decrease in energy expenditure. As activity decreases, for whatever reason, the risk of developing obesity increases.

The Service said that while a substantial amount of obesity exists at every age in both sexes, obesity in children and adolescents is a particularly discouraging omen for the future.

"Obese children and adolescents are a major reservoir for obesity in adult life," the source said. "They are more likely to remain obese as adults and to have more difficulty in losing fat and maintaining fat loss than people who become obese as adults."

* * *

No bottle of children's aspirin sold after July 1, 1967, will contain more than 36 tablets in a joint government-industry effort to reduce accidental overdose.

This restriction was one of several steps announced jointly by the Food and Drug Administration and 32 drug firms after a conference aimed at curbing childhood deaths and illnesses.

Also by July 1, bottle of children's aspirin will contain this cautionary label:

"Precaution: No cap is 100 per cent childproof. In case of accidental overdose, notify physician immediately."

Also agreed on was a limitation in the potency of children's aspirin. Some now range as high as 5 grains a tablet. The new limit will be 1¼ grains.

* * *

Dr. William H. Stewart, Surgeon General of the Public Health Service, says the nation's hospitals need 20 per cent more professional and technical workers — primarily nurses — to provide the best patient care.

Stewart's statement accompanied a joint U. S. Public Health Service-American Hospital Association survey which showed that more than 80,000 additional nurses and 40,000 practical nurses are needed, plus 50,000 aides in general hospitals, 30,000 in psychiatric institutions, 9,000 medical technologists, 7,000 social workers and 4,000 physical therapists, x-ray technologists and surgical technicians.

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FEBRUARY 7 and 8

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ROBERT P. MCCOMBS, M.D.
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*Senior Physician and Chief of Allergy-
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ROBERT S. SCHWARTZ, M.D.
Associate Professor of Medicine
Tufts University School of Medicine
Chief of Clinical Immunology
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FEBRUARY 14 and 16

LUPUS ERYTHEMATOSUS AND RELATED DISORDERS: PROGNOSIS AND TREATMENT

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Professor of Graduate Medicine
Assistant Dean, Courses for Graduates
Tufts University School of Medicine
Senior Physician and Chief of Allergy-

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Associate Professor of Medicine
Tufts University School of Medicine
Chief of Clinical Immunology
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FEBRUARY 21 and 23

DISEASES DRUGS CAUSE — PART I (P)

ALVIN P. SHAPIRO, M.D.
Department of Medicine
University of Pittsburgh

ROBERT McDONALD, M.D.
Department of Medicine
University of Pittsburgh

FEBRUARY 28, MARCH 2

DISEASES DRUGS CAUSE — PART II (P)

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Precautions: In elderly and debilitated and in children over five, limit dosage to smallest effective amount, increasing gradually as needed and tolerated. In general, concomitant use with other psychotropics is not recommended. Paradoxical reactions have been reported in psychiatric patients and hyperactive aggressive children. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically. Observe usual precautions in presence of impaired renal or hepatic function, impending depression and suicidal tendencies.

Adverse reactions: Drowsiness, ataxia and confusion may occur, especially in elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. Syncope occurs rarely. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis, jaundice and hepatic dysfunction) may develop occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy. Individual maintenance dosages should be determined.

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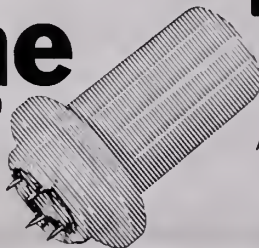
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FEBRUARY, 1967

Medical Journal

MEDICAL EDUCATION ISSUE

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Vol. L, No. 2

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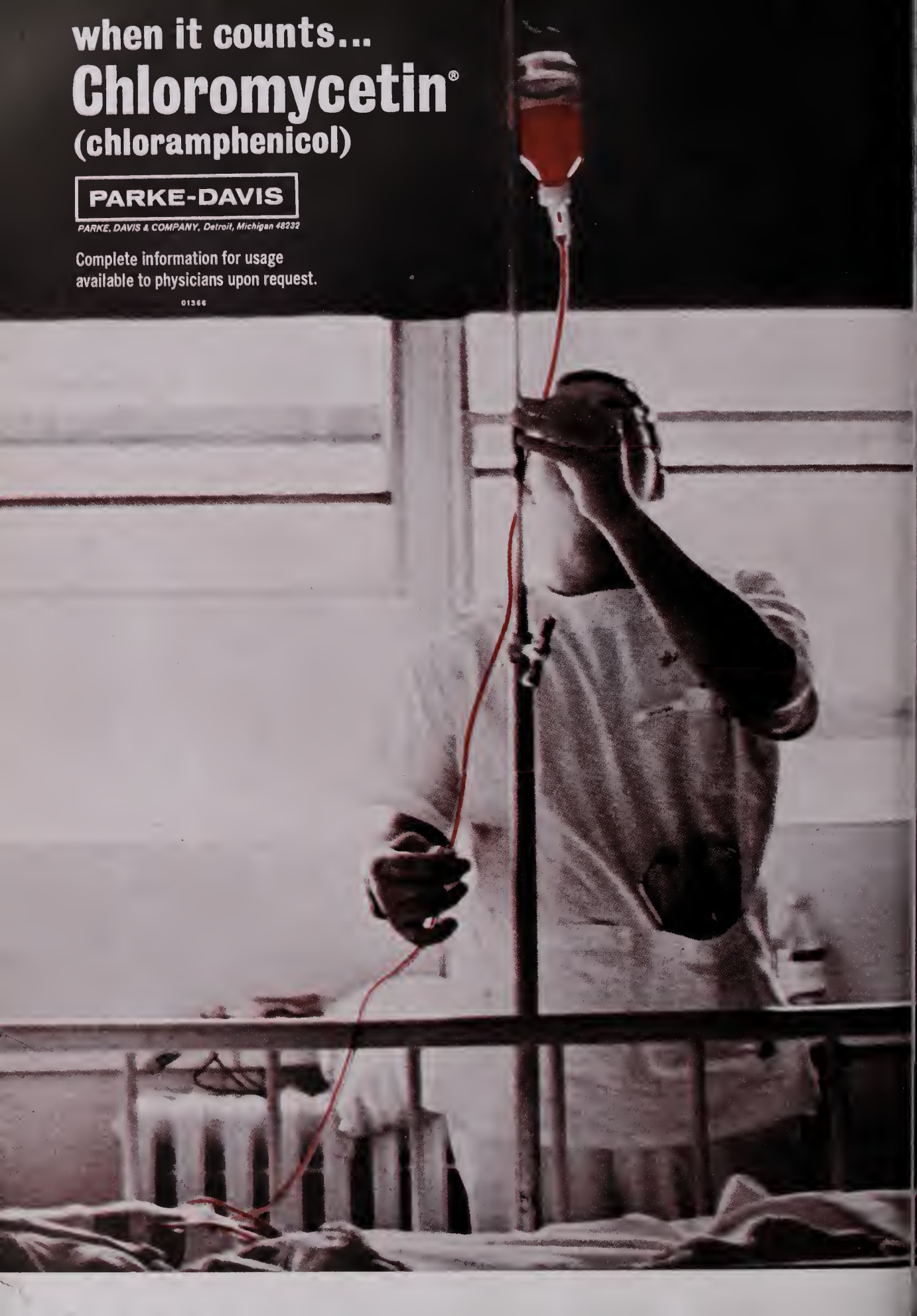
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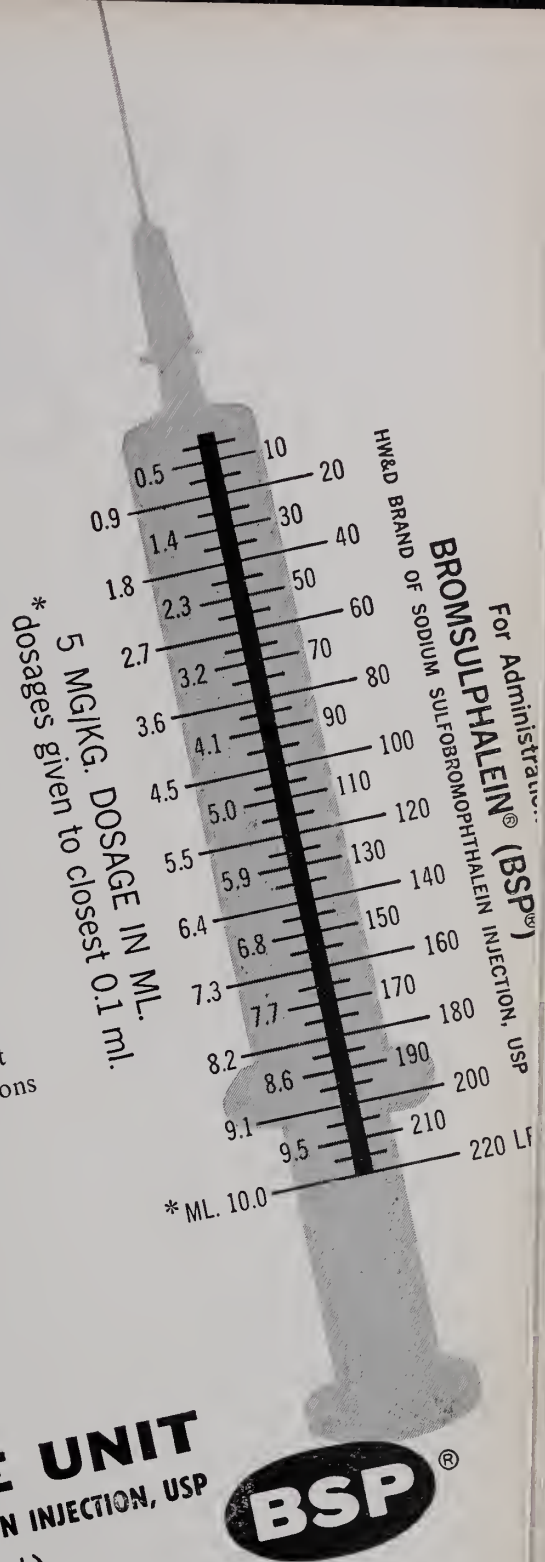
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Vol. L, No. 2

February, 1967

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Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. One patient exhibiting drug dependency by taking a chronic overdose developed upon cessation questionable withdrawal symptoms. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6 to 12 year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leukopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever, euphoria and dysmetria.

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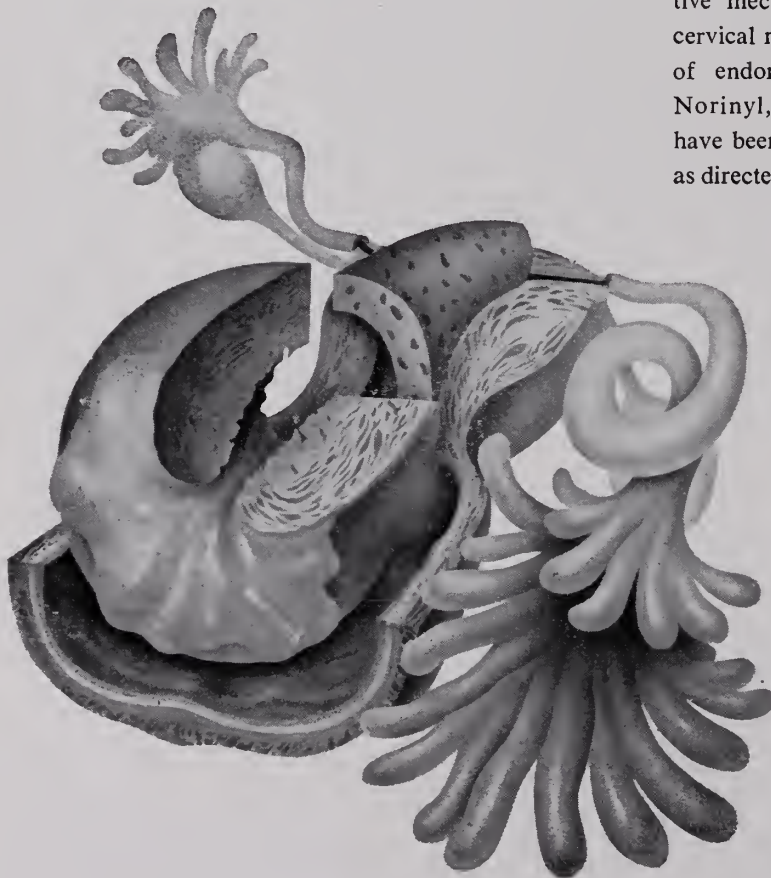
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no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus¹⁻¹³ and an acceleration of endometrial changes.^{1-3,7-16} With Norinyl, no unplanned pregnancies have been reported to date when used as directed.



plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

no confusion about dosage

An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to con-

firm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-

ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism. **Side Effects:** Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

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THE WASHINGTON SCENE



A Summary Report Prepared by the Washington Office of the American Medical Association

At a cost of nearly \$1 billion, more than six million older persons got hospital and medical benefits during the first six months of the medicare program.

Social Security Commissioner Robert M. Ball expressed satisfaction with the overall operations so far of the health insurance program for the elderly. But Ball warned of bed shortages in the nation's capital, in various New England states, and in most rural areas when a new medicare benefit of nursing home care went into effect Jan. 1. He estimated that 50,000 to 60,000 beds would be needed for extended care in nursing homes.

The Commissioner recommended a number of changes in the program:

—He urged that medicare benefits, which apply to persons 65 or older, be extended to 1.3 million disabled persons.

—He said the major improvement needed in the Social Security program is an "across-the-board" increase in benefits. Over-all benefits to be paid out in 1966 will rise from \$21 billion in 1966 to \$25 billion in 1967, he noted. President Johnson has announced he will seek a boost of about 10 per cent in Social Security benefits in the next Congress.

Ball's report on the first six months of medicare included:

—About 2.5 million elderly persons received free hospital care and 3.5 million benefited from medical services.

—Since medicare began July 1, 1966, hospital occupancy increased 5 per cent, as expected. Thirty per cent of all hospital beds were occupied by those 65 or older at the end of 1966.

—About 6,700 hospitals now are participating in medicare. About 250 hospitals were excluded because they did not meet minimum standards, and 75 hospitals because of racial discrimination.

—Payments to doctors and skilled medical per-

sonnel, such as radiologists, have taken too long.

—Overcrowding of hospitals in various "isolated" incidents.

—Almost all of 17.5 million persons who signed up for additional medical insurance at a premium of \$3 maintained their payments.

Seventeen hospitals in five states declared ineligible for federal funds because of failure to comply with provisions of the 1964 Civil Rights Act were granted public hearings by the Public Health Service in Alabama, Louisiana, Mississippi, South Carolina and Texas.

"Discriminatory practices found at the hospitals include the segregation of patients . . . an absence of negro physicians . . . and the segregation of training facilities," a PHS spokesman said.

Sen. George D. Aiken, R., Vt., proposed a nine-point program to liberalize benefits under the government's medicare plan for action by Congress. One would extend medicare drug coverage to prescriptions for old people whether or not associated with hospital confinement. A similar plan was included in a Senate-passed tax bill last summer but was killed in a Senate-House conference. Other Aiken proposals would eliminate deductible and co-insurance features, waiting periods and enrollment deadlines from the medicare plan, lower the 65 year age requirement for women to 62, and permit payment of medical specialist fees customarily provided by hospitals.

* * * * *

The National Advisory Cancer Council reported that, although cancer is still on the increase, more people are being cured of it than ever before.

The report — titled "Progress against Cancer" — shows that 30 years ago there were 144,774 cancer deaths in the United States, a crude rate of 112.4 per 100,000 of the population. In 1967 an estimated 305,000 deaths will occur, bringing the

(Continued on Page 77)

winter 1966

DORSEY

Season

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this issue: the nose as a shock organ

the nose as a shock organ

by Charles J. Shagoury, M.D., Chelmsford, Massachusetts

"Is it a cold, hay fever, or has he been reprimanded by his boss?" Occasionally, you will ask yourself this question when confronted by a patient with abrupt onset of rhinorrhea, nasal obstruction, and sneezing. Usually the history will elucidate the problem, but examination of the nose will often provide valuable clues to the correct diagnosis.

The nose is a shock organ in a double sense. First, it is in the nose that the confrontation takes place with the surrounding atmosphere. For twenty-four hours a day, the nose must meet the varying challenges of the inspired air, containing perhaps noxious chemicals, dust, dirt, bacteria, viruses, fungi, and industrial pollutants of all kinds, and render it clean, virtually sterile, and fit for the sensitive alveoli of the lungs. Whatever the temperature or humidity of the atmosphere, the nose must transmit it to the lungs at approximately 98°F, and with a humidity of approximately 40%.¹

Second, in particularly susceptible patients, the nose acts as a shock organ in a manner totally unrelated to its normal function. Persons with hay fever respond to ordinarily harmless materials by extreme nasal congestion, with marked rhinorrhea and violent spasms of sneezing. In some patients, exposure to threatening or disagreeable agents, or situations involving mental conflict may result in a reaction which is exclusively nasal, with swelling of the turbinates, and marked hypersecretion.²

Nasal symptoms usually result when the nose seeks to perform its function of getting rid of noxious and dangerous elements in the atmosphere, and prevent their admission to the trachea and lungs. Small particles are removed by the mucous coating which blankets the nasal passages. This mucous blanket contains a bacteriostatic agent, lysozyme, which destroys most air-borne bacteria.³ The mucinous content renders the surface sticky, causing dusts and small particles to adhere. It has been postulated that this process is rendered more effective through adsorption because of a surface electrical charge on the nasal mucosa.⁴ The cilia then sweep the particu-



late matter to the pharynx. The nose can prevent entrance into the lungs of particles as small as three microns in diameter, but smaller particles elude the nasal barrier. Most bacteria causing respiratory infections are one to three microns in diameter, but since they usually are inhaled in clumps, they are efficiently removed as a rule. Viruses, which are of the order of 1/1000 of this size, are less efficiently dealt with, unless they occur in very large aggregates.⁵

The nose will react in a more or less similar manner, whatever the nature of the offending agent, whether it be an irritant chemical, virus, pollen, or distasteful emotional situation. In acute coryza, the most characteristic sign is a profuse watery discharge. The volume of secretion may rise from practically nothing to nearly 60cc in twenty-four hours.⁶ The mucous membrane is reddened and engorged, while the turbinates are markedly swollen. After the first day or two, the secretion becomes thicker, yellowish, and more difficult to expel. The surface cells are largely destroyed, contributing to the copious discharge, which now also contains numerous inflammatory cells which have migrated to the area. Gradually, over a period of a few days, or a week, the flood abates, the swelling and redness subside, and the nasal epithelium resumes a healthy appearance.

Repeated attacks of rhinitis, particularly if there is an underlying element of obstruction, may result in chronic rhinitis. The mucous membrane is constantly swollen and reddened. Sticky, mucopurulent secretions are a continuous feature, and the glandular elements are hypertrophied. Commonly, the mucosal surface takes on an irregular, rounded "mulberry" appearance, and nasal passages are occluded by the swollen turbinates and redundant mucosa.

While all of us are susceptible to colds, the victim of hay fever, or allergic rhinitis, displays a marked nasal reaction to materials in the air which leave his associates unaffected. In such a patient, the nasal mucosa has become an allergic "shock" organ. Contact with the nasal allergen causes local release of histamine, with vasodilatation, increased vascular permeability, and severe nasal congestion, similar to the "wheal" and "flare" reactions in the skin, when the epidermis is the allergic shock organ. While we eagerly await the coming of spring, the hay fever sufferer dreads the blooming season, whose invisible pollens are poisons to his sensitive nose. His neighbor's cat or dog may provoke paroxysms of uncontrollable sneezing. In some cases a specific allergen is not identified, but the triad of rhinorrhea, nasal obstruction, and sneezing is present.⁷ The nose in these cases shows a pale, boggy, edematous mucosa, with a thin mucoid secretion. The mucous membrane shows extreme retractility to 1% cocaine or ephedrine. If the patient has medicated himself prior to examination, the nasal passages may appear abnormally patent, or show exaggerated congestion due to rebound reaction. The secretion may show a large number of eosinophils particularly after an attack of sneezing or rhinorrhea. Touching the mucosal surface, especially of the inferior turbinate, leaves an indentation, showing that the swelling is due to stasis and edema, rather than actual hyperplasia of the mucous membrane as in chronic hypertrophic rhinitis. Though the pale swollen mucosa is the hallmark of allergic rhinitis, as usually seen by the physician, exposure of allergic subjects to their known allergens results in a brief hyperemic phase, followed by pallor and edema.⁸

In the later stages of allergic rhinitis, the chronic edema of the mucous membrane results in the formation of polyps, clusters of grape-like masses hanging from the roof of the nose, with a pale glistening surface, contributing significantly to the sense of nasal obstruction and oppression.

A large group of patients show symptoms of nasal congestion when confronted by adverse life situations.⁹ In these unfortunate persons, anxiety, frustration, and resentment are often accompanied by a runny nose and nasal obstruction. Lacrimation adds to the nasal stuffiness. This autonomic response, mediated by the parasympathetic nervous system, may be part of a general parasympathetic reaction, or may possibly represent in part, a symbolic effort to wash out and crowd out the offending situation.

Nasal congestion may also occur in some patients at times of sexual stimulation, and in women during menstruation and pregnancy, even to the point of epistaxis.¹⁰ The relationship is obscure; castration results in atrophy of the nasal glands, and their action is inhibited by the hormones of the hypophysis and the thyroid.¹¹ The nose may be the shock organ in drug therapy. The nose may also bear the brunt of industrial stress, in those who work in a hot dry atmosphere, or those exposed to acid fumes, or irritating dusts. As the air in our cities is increasingly polluted by exhaust fumes, and industrial irritants, whole urban populations may suffer from chronic nasal and respiratory symptoms.

Of course, nasal reactions are not just infectious, or allergic, or emotional. Particularly in the chronic sufferers, there is an interdependence of all three. Death of a relative, or other psychic shock can pre-

(concluded on following page)

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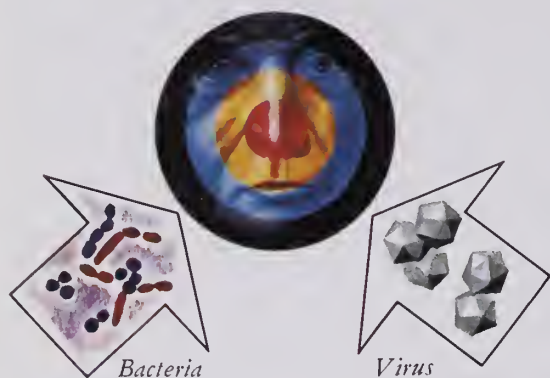
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precipitate an attack of rhinorrhea in hay fever sufferers.¹² Others develop attacks of vasomotor rhinitis following change in temperature, chilling, or exposure to the sun, or simply warm bedclothes.



The complex interplay of allergy and infection is largely unclear. Allergy to the viruses and bacteria which cause infection has been postulated, but is difficult to demonstrate. The swollen obstructed allergic nose is more susceptible to infection. At the same time, infection often precedes or precipitates an allergic attack. Exposure of a susceptible patient to an allergen can activate latent virus organisms leading to infection.¹³ This "jolt" reaction represents a summation of an allergen and a virus leading to symptoms in the nose as a shock organ, which neither could have produced alone. In childhood, repeated attacks of bronchitis and colds may be inflammatory reactions to an allergen, or precipitated by exposure to an allergen. These children may later develop typical allergic rhinitis. On the other hand, children with typical allergic histories, eczema, asthma, and allergic familial backgrounds, may later develop typical infectious rhinopathies. Skin tests in such patients are usually positive.

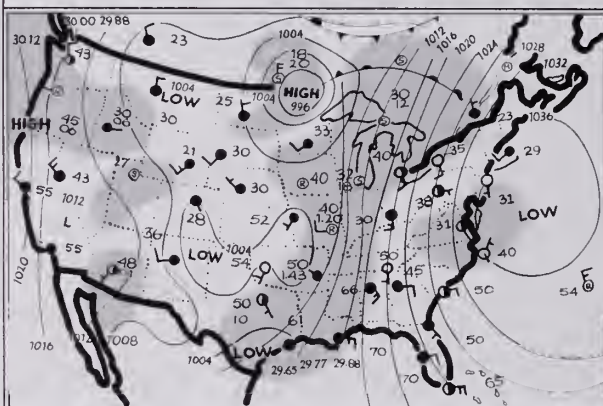
Nasal reactions are part of the systemic response of the patient to an unwelcome stimulus. In cases of respiratory infection and exposure to atmospheric irritants, the reactions are useful, and to some extent desirable. They are usually self-limited, disappearing within a few days, or upon removal of the provoking agent. Here the distressing symptoms can be ameliorated with appropriate decongestant agents, or, in the case of severe or complicated respiratory infections, antibiotics may be given, with reasonable confidence of a cure. On the other hand, when nasal reactions are the peculiar response of an individual to an allergen, or to an undesirable situation, they serve no useful purpose. The nose here is a shock organ in a stressful situation, but can furnish no response of value. It merely causes the patient symptoms which add to his problems. In these cases,

symptomatic treatment is of great benefit, but often the underlying faulty pattern of response cannot be altered. Such a patient may literally be considered to be paying his way in life "through the nose."

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WASHINGTON SCENE

(Continued from Page 76)

rate up to 153 per 100,000, according to the report. On the other hand, there has been an improvement in the cure rate. In 1937, less than one in five cancer patients survived five years without evidence of diseases, but currently about 35 per cent, or better than one in three are saved. There is good reason to believe, the report states, that this favorable trend will continue.

Intensive study of six types of cancer is recommended:

Cancer of the breast, which has shown little improvement in incidence or mortality for about 30 years; the lymphomas, one of which, Hodgkin's disease, has been cured in 40 per cent of cases in a localized stage; chronic leukemia and multiple myeloma, for which drug treatment should be greatly improved; lung cancer, which continues to increase, particularly in both men and women smokers; and uterine cancer which has been significantly reduced and might be totally eradicated by early detection with the "Pap" smear.

* * * * *

Expenditures on prescription drug research and development reached a new high, but fewer new products actually reached the market in 1966 than during any single year on record.

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, said that the situation was attributable to several factors, including difficulties encountered under federal drug regulations. He said that the 1962 federal drug amendments had necessitated increasingly lengthy, costly periods for manufacturers to develop technical information required by the government. Stetler added that more time also has been required by the Food and Drug Administration for processing applications.

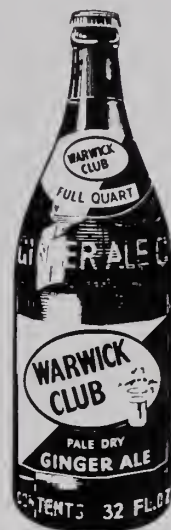
Total research and development expenditures during 1966 were estimated by Stetler at about \$400 million. He said that only 11 basic new products had been marketed in the year, compared with 23 in 1965, 17 in 1964, 18 in 1963, 28 in 1962, and 41 in 1961. The peak year was 1959 when 63 new products were introduced.

A PMA survey shows that a principal focus of the million-dollar-a-day search by industry for new pharmaceuticals is on drugs acting on the central nervous system and sense organs. These include sedatives, stimulants, tranquilizers and analgesics.

Stetler said that such drugs accounted for \$37.1 million or 19 per cent of the \$194.7 million spent in 1965 on applied research and development by 42 of the nation's largest prescription drug firms.

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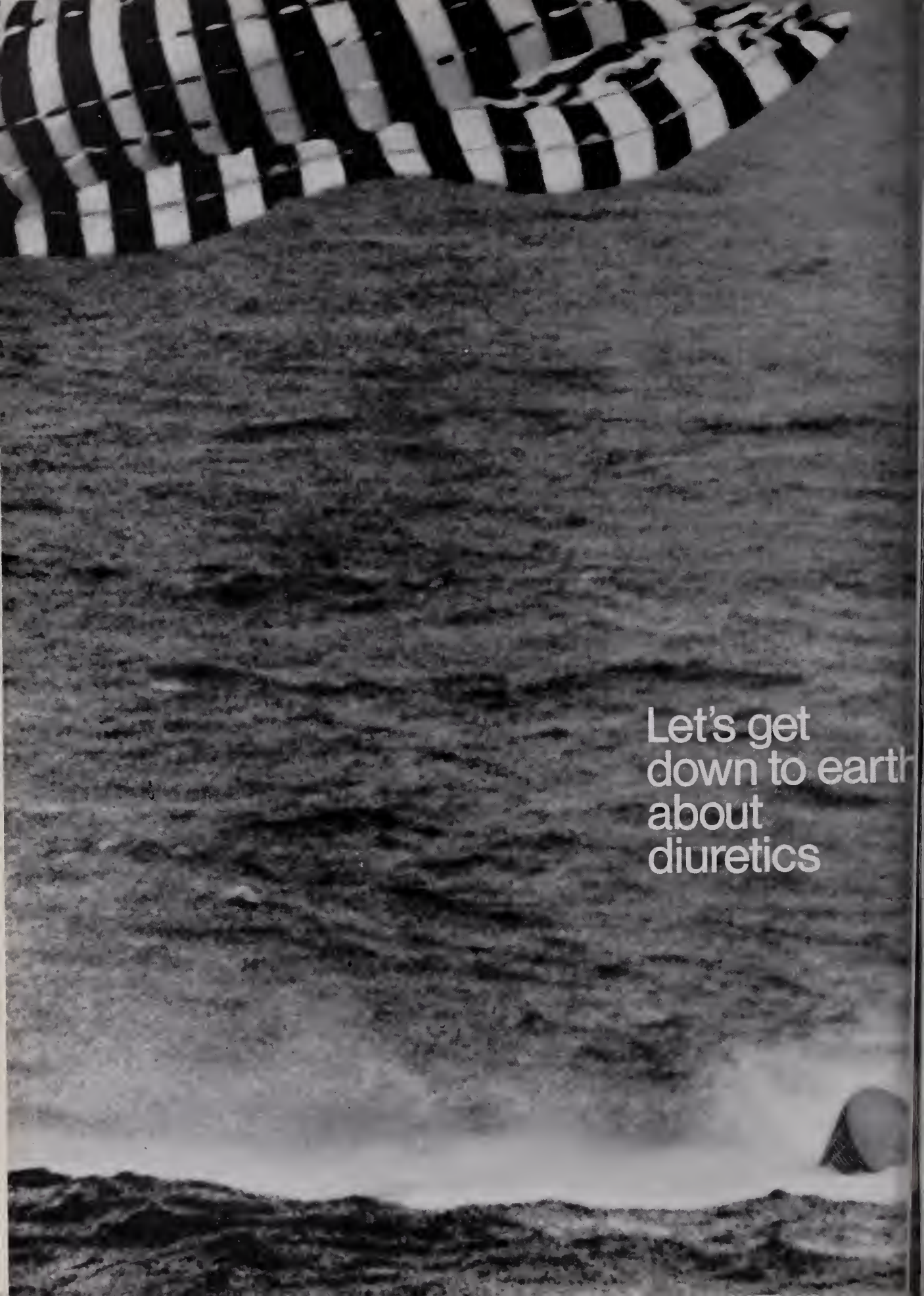
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*Brest, A. N., et al.:J. New Drugs 5:329, 1965.

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Indications: Hypertension and many types of edema involving retention of salt and water. **Contraindications:** Hypersensitivity and most cases of severe renal or hepatic disease. **Warning:** With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind. **Precautions:** Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. **Side Effects:** Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration. **Average Dosage:** One tablet (100 mg.) with breakfast daily or every other day. **Availability:** Tablets of 100 mg. in bottles of 100 and 1000. For full details, see the complete prescribing information. 6524-V(B)

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Geigy Pharmaceuticals
Division of Geigy Chemical Corporation, Ardsley, New York

Geigy



Now, now, Mrs. Forsythe, we've never lost a cold patient yet.

When she's experiencing acute discomfort from cold symptoms, it's small wonder the patient becomes distressed about her condition.

She will breathe easier when you prescribe Novahistine LP.

Novahistine LP is a long-acting decongestant that helps restore normal mucus secretion and ciliary activity—physiologic mechanisms which prevent infection of the respiratory tract. A dose of two tablets taken in the morning and repeated in the evening will usually keep air passages clear for 24 hours.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution patients who operate machinery or motor vehicles that drowsiness may result.

Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

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NOVAHISTINE[®] LP

For relief of nasal congestion.

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BOOK REVIEWS

STEREOSCOPIC ATLAS OF MASTOIDOTYMPANOPLASTIC SURGERY by Harold F Schuknecht, M.D.; Werner D. Chasin, M.D., and John M. Kurkjian, M.D. The C. V. Mosby Company, Saint Louis, 1966. \$26.50

This is an outstanding contribution to all medical literature because of the mode of presenting the step by step progress of a surgical procedure with the aid of stereoscopic pictures. A stereo viewer and ten reels are included with the Atlas to enable the reader to follow visually the description given in the text.

Otology has passed through a stage of evolution in which restoration of function became an accompanying goal with the eradication of disease. Now we should be able to end confusion and disagreement by establishing firm basic principles accompanied by a standardized technique. The Massachusetts Eye and Ear Infirmary has accomplished this by establishing a special tympanoplasty service fusing the differing opinions so as to obtain more predictable and satisfactory results.

The Atlas is strictly a specialty book and is a must in the library of every resident in, and practitioner of otolaryngology. The technique is faultless and proven. However, one note of caution should be passed on regarding the use of adrenalin with Fluothane.[®] The danger is mentioned, but the subject is so controversial that it would have been better not to have condoned the practice in this book, which may well become the "Bible" of the management of chronic ear disease.

FRANCIS L. McNELIS, M.D.

REALITY THERAPY. A New Approach to Psychiatry by William Glasser, M.D. With a Foreword by O. H. Mowrer, Ph.D. Harper & Row, Publishers, New York, 1965. \$3.95

This book is highly recommended to all members of the medical and nursing professions and, in fact, to all thoughtful and intelligent laymen as well.

Reality Therapy is not concerned primarily with the causes of mental illness, but with the means for helping the mentally disturbed individual. This different approach is concerned with helping the disturbed person fulfill his "need to love and be loved and the need to feel worthwhile to ourselves and to others." The reality therapist asks "What are you doing — not why are you doing it?" The the-

rapist stresses right and wrong, responsibility and reality.

Doctor Glasser in the first part of the text gives the above basic concepts and explains the differences between reality therapy and conventional therapy (psychoanalysis, etc.). In Part 2, he outlines the practice of reality therapy with case studies and clinical experience in office practice, and in the treatment of the seriously ill, disturbed, and the psychotic hospital and detention home patients. In the concluding chapter, Doctor Glasser writes of the application of his treatment to students in the public schools — mental hygiene.

All in all, this text is most impressive. For anyone who has treated patients in any branch of medicine and surgery it rings many bells and leaves a lasting impression. Also, it is written clearly and reads like a novel which it definitely is not. Highly recommended.

J. A. DILLON, M.D.

BASIC SCIENCE LECTURES

**Auditorium — George Building, R.I. Hospital
WEDNESDAY at 4:30 P.M.**

Open to All Interested Physicians

March 1, 1967

18. NEUROMUSCULAR DISEASE AS RELATED TO ORTHOPEDICS

Dr. M. Howard Friedman, Ass't Physician, Dept. of Neuro. & Psych., Rhode Island Hospital

March 8, 1967

19. UROLOGY PROBLEMS FREQUENTLY ENCOUNTERED IN ORTHOPEDICS

Dr. Ernest K. Landsteiner, Surgeon-in-Chief, Dept. of Urology, Rhode Island Hospital

March 15, 1967

20. DEVELOPMENT AND EVOLUTION OF EXTREMITIES

Dr. George E. Erikson, Division of Biological and Medical Sciences, Brown University

March 22, 1967

21. TRAUMATIC HAND SURGERY

Dr. Armand D. Versaci, Surgeon, Division of Plastic Surgery, Rhode Island Hospital

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- quickly relieves congested nose
- action is gentle, yet prolonged
- side effects are minimal

INDICATION: Nasal congestion. **CONTRAINDICATION:** Do not use in patients sensitive to small doses of sympathomimetic substances. **WARNINGS:** Prolonged or excessive use may cause rebound congestion. Use cautiously in patients with hyperthyroidism, coronary artery disease, hypertension, and diabetes. **CAUTION:** Do not shake Nasal Spray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water after each use. No more than one person should use the same dropper bottle or nasal spray.

SIDE EFFECTS: Occasional local reactions: rebound congestion, slight burning or stinging, sneezing, dry nose. Occasional systemic effects: headache, drowsiness, lightheadedness, insomnia, palpitations. Overdosage in young children may produce profound sedation. **DOSE:** **Adults:** Nasal Solution—2 or 3 drops in each nostril every 4 to 6 hours. Nasal Spray—Squeeze rapidly once or twice in each nostril every 4 to 6 hours. **Children under 12:** Pediatric Nasal Solution—2 or 3 drops in each nostril every 4 to 6 hours. One drop should be used

in infants under 6 months. **Pediatric Nasal Spray**—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours as necessary. **SUPPLIED:** OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) Nasal Solution, 0.1%; dropper bottles of 1 fluidounce, bottles of 1 pint. Nasal Spray, 0.1%; plastic squeeze tubes of 15 ml. Pediatric Nasal Solution, 0.05%; dropper bottles of 1 fluidounce. Pediatric Nasal Spray, 0.05%; plastic squeeze tubes of 15 ml. Nasal Solutions contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. Nasal Sprays contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic, sodium chloride, and benzalkonium chloride 1:5000 as preservative in water. Consult complete literature before prescribing.

CIBA Pharmaceutical Company, Summit, N. J.

C I B A

**It's easy
for children
to get bacteria
U.R.I....**



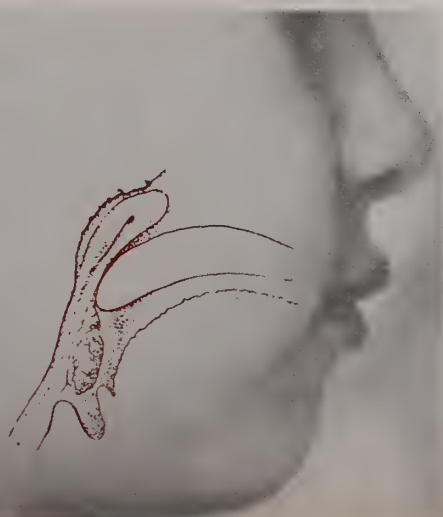
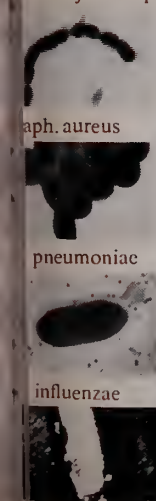
and Gantanol (sulfamethoxazole) Suspension is a good way to help them get well

Proven effectiveness in common bacterial upper respiratory infections

Clinical results in patients probably much like those you see every day show that an overwhelming majority responded favorably to Gantanol (sulfamethoxazole) Suspension.¹⁻¹² These patients, numbering over 1600 in published reports, had a variety of bacterial upper respiratory infections such as otitis media, sinusitis, pharyngitis and tonsillitis, including over 700 cases caused by beta-hemolytic streptococci.¹⁻⁷

Although in bacteriologically proven streptococcal infections penicillin remains the drug of choice, Gantanol (sulfamethoxazole) has shown conversion rates comparable to those generally seen with penicillin and apparently superior to those cited in the literature for erythromycin and broad-spectrum antibiotics.^{1,2} Conversion rates have ranged from a high of 96 per cent in 229 patients² to a low of 5 per cent in 105 cases.^{3,4} When Gantanol (sulfamethoxazole) Suspension is used in group A beta-hemolytic streptococcal infections, it is important to continue therapy in the recommended dosage for at least 10 days. In addition, Gantanol (sulfamethoxazole) Suspension has demonstrated antibacterial activity against *D. pneumoniae*, *H. influenzae* and *Staph. aureus*. Thus Gantanol (sulfamethoxazole) Suspension may be considered a practical choice for common bacterial U.R.I., as well as an effective alternative in the penicillin-sensitive patient with proven beta-hemolytic streptococcal infection.

hemolytic strep



therapy generally uncomplicated by side effects

Such favorable results as those cited in the literature¹⁻¹² are even more meaningful in view of the fact that only 27 of 1961 patients (1.4%) discontinued therapy because of side effects. Of the total side effects reported in 107 patients (5.5%), most were mild and included rash, urticaria, itching, dizziness, headache, diarrhea, nausea and vomiting, shivering sensation, skin discoloration and crystalluria.¹⁻¹²

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic respiratory and urinary tract bacterial infections due to susceptible microorganisms. At present penicillin is considered the drug of choice in acute group A beta-hemolytic streptococcal infections; however, Gantanol (sulfamethoxazole) has shown an effectiveness approaching that of penicillin in a large number of patients. If employed in such infections, it is important that therapy be continued in the usual recommended dosage for a period of at least 10 days.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants or infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed. Data insufficient on prolonged or recurrent therapy in chronic renal diseases of children.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Following may occur: headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Dosage: *Children*—1 teasp./20 lbs initially, followed by ½ teasp./20 lbs b.i.d. *Adults*—4 teasp. initially, followed by 2 teasp. b.i.d. or t.i.d., depending upon severity of infection.

How Supplied: Suspension 10%, 0.5 Gm sulfamethoxazole/5 cc teasp., cherry-flavored, bottles of 16 oz.

References: 1. Braden, B., and Colmore, J. P.: *J. Oklahoma M.A.*, 57:7, 1964. 2. Alban, J.: *Am. J. Dis. Child.*, 109:304, 1965. 3. Reichelderfer, T. E.: *Clin. Med.*, 71:1045, 1964. 4. Jackson, H.; Cooper, J.; Mellinger, W. J., and Olsen, A. R.: *Southwestern Med.*, 44:246, 1963. 5. Braden, B.; Colmore, J. P., and Cummings, M. M.: *Antimicrobial Agents Annual*—1960, p. 54. 6. Peters, J. H.: Data adapted from a Scientific Exhibit presented at the Spring Meeting of the American Academy of Pediatrics, April 26-29, 1965. 7. Peters, J. H.: *Antimicrobial Agents and Chemotherapy*—1961, p. 406. 8. Elia, J. C.: *Eye Ear Nose & Throat Month.*, 41:722, 1962. 9. Patton, J. M.: *West. Med.*, 5:46, 1964. 10. Chastain, P. J.: *J. Florida M.A.*, 48:816, 1962. 11. Grater, W. C.: *Antibiotics & Chemother.*, 12:450, 1962. 12. Exline, A. L.: *Colorado GP*, 5:(5), 11, 1963.

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*Marks, V., and Dawson, A.:
Brit. M. J. 1:293, 1965.

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SCANNING THE MEDICAL LITERATURE

OBSTETRIC BEHAVIOR OF THE GRAND MULTIPARA. S. Leon Israel and Andrew S. Blazar, *Am. J. Obst. & Gynec.* 91:326, 1965.

The data concerning 5,551 grand multiparas, representing 4.3 per cent of the 128,568 women who bore children during a three year period (1958 through 1960) in 13 collaborating hospitals of the Obstetrical Statistical Cooperative, have been reviewed.

An obstetrically disconcerting, statistically significant heightening of the incidence of anemia, pre-eclampsia, chronic hypertension, placental disasters, uterine rupture, and postpartum hemorrhage has emerged as characteristic of excessive multiparity.

The failure of the primary cesarian section rate to fall with increasing parity may be attributed to the greater number of malpresentations and placental disorders encountered among grand multiparas.

Genital tract infection giving rise to febrile morbidity was more common among the pluriparas.

In spite of the several complications that imperil the pregnant grand multipara, some of which represents the adversity of age, the present evidence is clear-cut that she is nowadays being cared for with no greater risk of life than that of any other pregnant woman.

KNUCKLE PADS AND SIMILAR-LOOKING DISORDERS. Francesco Ronchese. *Gior. Ital. Dermat.* 107:1227, 1966.

Common and rare dematoses, occasionally located on the knuckles, are discussed. Knuckle pads are uncommon or rare and are hard, fibromatous elevations on top of the skin of the knuckles, unrelated to occupational trauma. They are a manifestation of cutaneous polyfibromatosis. The terminology is discussed. The seventy-odd-years-old term knuckle pads is considered the most satisfactory.

THE NAIL IN PSORIASIS. Francesco Ronchese. *Cutis* 2:900, 1966.

Photographs of minimal nail lesions together with full-ledged psoriasis patches in the same pa-

tient are presented to demonstrate that the diagnosis of psoriasis of the nails is possible even if a single nail is involved, if the lesions are minimal, and in the absence of manifestations of psoriasis elsewhere.

SPONTANEOUS BLEACHING OF MELANOTIC FRECKLES. Francesco Ronchese. *Arch. Dermat.* 94:739, 1966.

This is the report of a case of a 48-year-old woman in whom melanotic freckles, instead of increasing in blackness with the advance of age, are fading away. The patient has xeroderma pigmentosum and had malignant melanomas of skin and brain. Incidentally this woman is alive and working.

IN THE EDITOR'S MAILBOX

To the Editor:

We thank the members of the Rhode Island Medical Society who have already answered and returned the questionnaire on family planning. It would be greatly appreciated if those who still have them would complete and mail them to us. The resume of the results to be published later will be more meaningful on the basis of a large response.

Again thank you for your cooperation.

Evelyn L. Slabey, M.D.

Medical Director

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Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects
intestinal mucosa.

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.



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Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent)..... (1.0 dram) 3.7 ml.
Contains opium ($\frac{1}{4}$ grain) 15 mg. per fluid
ounce.

warning: may be habit forming

Pectin (2½ grains) 162 mg.
Kaolin (specially purified).... (85 grains) 5.5 Gm.
(alcohol 0.69%)

Usual Adult Dose: One or two tablespoonfuls three
times daily.



WILLIAM H. RORER, INC.
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PERHAPS, BUT ON THE OTHER HAND . . .

It was a feast to get up this morning,
your blood pressure was clearly
under control: systolically and diastolically
you were all there, ready to stand
on your head, to whack a ball, to rake
the lawn, to crush a proper enemy or
pull a practical joke on a neighbor.

So ignore hypotension, no matter what
the cardiac whims hold in abeyance;
forget those few diurnal variations,
and today call up the market and order
a cream-topped cake, a walnut-fed
goose or a suckling pig.

It is the potential you, you feel,
with all the erstwhile reactions;
you need not watch flatulence with
a jaundiced eye, but with an eye
skewered whimsically in like a monocle;
you can even look upon your heliotrope
colored stool with equanimity, and
the enema bag as if it could conceivably
become a mobile to be suspended from
your music-room ceiling.

"No depression today," you write
in your diary, "everything well-attuned
to thiazides and enhanced by therapeutic
responses — is that what I mean?"
And you'll push a chartreuse tinted
carnation into a button hole — after all
doctors have a weakness for blooms
of graphic color and texture — and
never mind the other sundry holes,
some surgical; put your shiny dentures
in, and you are primed to meet
anything and anyone, even your doctor,
if he should be of equable mind and humor.
Yes, perhaps, but on the other hand. . . .

DAVID CORNEL DEJONG

ONE SENTENCE ESSAY

The properties of the diagnostic process and the
type of procedures useful for computers are not
identical at all. The actions demanded of the diag-
nostician are precisely the sort of things which
computers can do either not at all or with extreme
difficulty.

... *Extracted from Diagnosis and the Computer by
Sterling et al. J. AMA, Oct. 17, 1966*

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backache since I got
the mattress"*

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When the otherwise normal, healthy patient complains
of discomfort and backaches, many doctors suggest a

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If you find backache brought on by poor sleeping posture,
consider the experience many, many doctors and patients
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Sealy Posturepedic is designed in cooperation with lead-
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firmness, providing the kind of support acknowledged
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reduce muscle tension.

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As a doctor, you are invited to take advantage of a
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☐ Enclosed is my check. Please send the Sealy Posturepedic set(s)
indicated below. (To be delivered by my nearest Sealy dealer.)

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Check your preference:

- ☐ Innerspring Set
- ☐ Foam Rubber Set

☐ Please send me additional information about professional dis-
counts on Sealy Posturepedic mattresses.

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Posturepedic innerspring mattress and foundation \$159.00 per set (add state tax)	\$120.00
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(meprobamate and
ethoheptazine citrate with
aspirin)



Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy.

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

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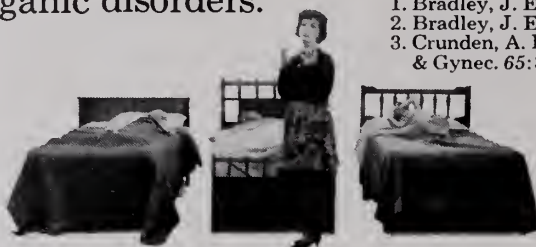
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1. Bradley, J. E., *et al.*: J. Pediat. 38:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. 20:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. 65:311 (Feb.) 1953.



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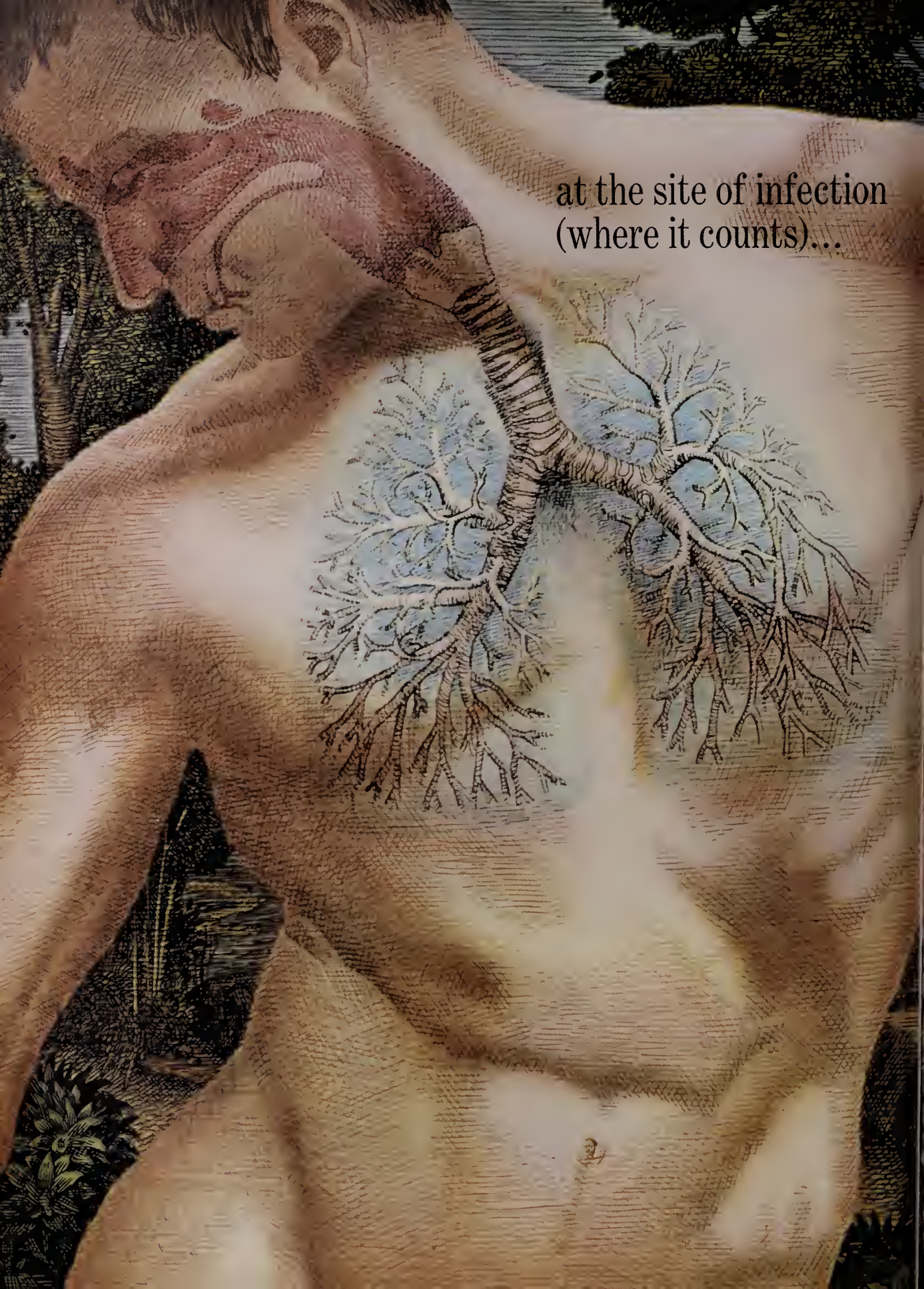
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Acid stable, better absorbed ... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food¹⁻³

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.^{1,2} Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.^{1,3}

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of

staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Ilosone® 700121
Erythromycin Estolate



(See next page for prescribing information.)

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone. **Contraindications:** Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to

be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalofluorescence and thymol turbidity tests, elevated serum glutamyl oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, a patients with rheumatic fever have taken prophylactic doses 0.5 Gm. daily for two years without difficulty. In one group 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of the patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months in rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevations of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (7 to 14 day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticarial skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®

Ilosone Chewable Tablets

Ilosone Drops

Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours; children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days is recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base), in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 100-cc. size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc. size packages.

References: 1. Griffith, R. S., and Black, H. R.: *Am. J. M. Sc.*, 247:69, 1966.
2. Griffith, R. S., and Black, H. R.: *Antibiotics & Chemotherapy*, 12:398, 1966.
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: *Am. J. M. Sc.*, 239:198, 1965.

Additional information available to physicians upon request.
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DERMAQUIZ

by FRANCESCO RONCHESE, M.D.



1. Reddish nodules on one leg, extremely painful, going on for years. The pain was so severe that a cordotomy was done.

2. Pustular vegetating nodes going on for some months.

Answers on page 116

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NEW DIRECTIONS IN MEDICAL EDUCATION*

Medical Program at Brown University Offers Opportunity to Adapt to Newer Trends

LOWELL T. COGGESHALL, M.D.

The Author, *Lowell T. Coggeshall, M.D., of Chicago, Illinois. Vice President, University of Chicago; Associate Director, Health Information Foundation, University of Chicago.*

As one who has spent most of his life in medical education, I confess to being impressed both by the peculiarities and the importance of this calling. The importance of medical education is readily apparent, for we are dealing with the *root* of problems involving health, life and death. The magnitude of the task is not so widely recognized. Many people don't realize that in dollar volume and number of persons employed, the health field is one of the nation's largest industries. In many towns the hospital is the largest single employer of labor.

The peculiarities of medical education are many. Service to the public is essential during the educational process. A university can produce an engineer without becoming involved in the operations of a steel mill or the building of a railroad; it can produce a lawyer without participating in the functioning of a courtroom; but it cannot produce a practicing physician without becoming affiliated with a functioning hospital. This results in many complex situations. If you are not properly impressed by the problems, ask the president of any university that has a medical school.

CHANGES IN PRACTICE OF MEDICINE

Within my lifetime there have been tremendous changes in the practice of medicine. There have not been comparable changes in the teaching of medicine. Of course it's often possible to modernize a course without altering the basic structure of the curriculum, but eventually you arrive at a point where it is necessary to consider major revisions in how things are being taught. We have reached that point in medical education. All agree that changes are long overdue except in his own balivewick. In some ways medical schools bear a close resemblance to ancient trade guilds than to modern universities of which they are an important part.

Let me offer one interesting example of an edu-

cational anachronism. It's generally agreed that the time for rote learning is when a student is comparatively young. He enjoys memorizing things, gaining control over words and concepts. It's easy, and things stick.

Now, although we have been modifying the way we teach gross anatomy, the subject still retains many of the characteristic that it gained when Michaelangelo was learning to paint and biological scientists were regarded as grave-robbers. This problem cannot be solved solely by our medical schools — it must be solved with the help of elementary school and high school administrators. It is to them that we must address our appeals for reform.

ROLE OF ELEMENTARY EDUCATION

A child should be able to leave elementary school knowing the names of the human body and the names, origins, and insertion of the major muscles. No child interested in the biological sciences should leave high school without knowing at least as much about gross anatomy as he does about the calculus. Think of how communication would be facilitated without technicians and secretaries in the hospitals, and even without patients, if such commonplace knowledge were indeed commonplace. Furthermore, we would not be wasting a good part of one of the most productive years of a medical student's life on rote material in elementary gross anatomy.

Medical administrators have a political job to do — to tell elementary school educators what knowledge we want our students to have when they begin their advanced work.

I mention this example not because the idea of reforming the way we teach gross anatomy is spectacularly new — it's not. However, as we shall see, the practice of modern medicine is becoming more and more a team effort, and medical educators have paid very little attention to the basic training of the team. Eventually, we will have to make our influence felt in this area.

The path ahead for medical education is far from clear, but far-reaching changes are in prospect. This is indeed an exciting time to start upon a major new venture in medical education.

(Continued on next page)

An Address delivered at the Brown University Medical Education Development Fund Dinner, at Providence, R.I., November 3, 1966.

I am proud to be asked to be here because Brown University is in a unique position to make a major contribution to American medical education. It is my opinion that Brown University soon will be or can be among the leaders in this field. This institution has a strong research posture, a distinguished faculty, and a tradition of academic excellence. The program will not be handicapped by institutionalized error. That is, you don't have a lot of dead cats to be disposed of before you can make significant progress along new directions. You are off to a fresh start, and you will find that success breeds support.

You are starting in the right time, at the right place, in the right way. The enemy in a great enterprise such as this is harmonious mediocrity. It takes courage to do a thing right rather than to do it acceptably. Brown University has displayed such courage in the past.

REVISION OF PREMEDICAL AND PRECLINICAL CURRICULA

I am convinced of the wisdom of the decision to deal first with a revision of the premedical and pre-clinical years, with the help of a clinical faculty. It is in this area that established medical schools have their greatest difficulties — in staffing, administering, and maintaining excellence in pre-clinical, academic courses.

Students who complete four years in this curriculum will receive the Bachelor of Arts degree, and at the end of the sixth year, the Master of Medical Science. Graduates who then wish to enter medical practice will transfer to another medical school for two years of clinical study towards their M.D. degree. Of equal importance, students who want the Ph.D. will be able to finish work for that degree with two years of advanced courses and research. The tremendous importance of providing a core curriculum for M.D.'s and Ph.D.'s is apparent to all who have dealt with the problems of medical research and interdisciplinary communication.

As the former dean of a medical school I could reasonably be asked what I would think of accepting a graduate of Brown with a Master's degree for clinical training. I am pleased to be able to answer directly and simply: I would accept all such graduates I could get for clinical training. I think they would prove to be outstanding.

TRENDS IN MEDICINE AND MEDICAL EDUCATION

I would like to set forth some of the principal items, as I see them, involving American medicine in general, and more specifically, medical education. I would like to comment briefly on the opportunities Brown University has to make significant contributions to the solution of these problems.

First, we may note that the great tradition of

medicine is not an unbroken line extending back to the ancient Egyptians. It has had its stationary periods, and its periods of great advancement. But the greatest advances have been the most recent, beginning slightly more than three decades ago. That was when the first of the powerful antibiotics were discovered. These antibiotics, together with improved vaccines, have enabled us to conquer most of the incapacitory infections. Recent discoveries and advances in surgery, anesthesia, and the metabolic field, together with a development of a vast array of electronic diagnostic and therapeutic equipment, have for the first time placed the physician on the offensive. Prior to this time the physician was largely on the defensive, diagnosing ailments and alleviating symptoms, but seldom striking at the roots of disease.

Since the mid-thirties important changes in medicine have come so rapidly that they are appropriately referred to as a medical revolution. Only in the educational area has there been a lack of comparable progress.

There is reason to believe that medical, scientific, and technological advances are going to continue, in fact at an accelerating rate. Changes in the future will have a profound effect on society and its institutions, and pressure from the public to reap the benefits of such progress will continue to mount.

Recently I had the honor to be chairman of a committee of the Association of American Medical Colleges which presented a summary and analysis of the opinions of many authorities concerned with medical progress — university presidents, statesmen, the executives of Blue Cross, insurance companies, industry, and consumer groups. There was a surprising consensus about the major trends apparent in medicine today, although many of the opinions were expressed in different ways.

Our findings have a particular relevance for Brown University, embarking on this new and exciting program which, I am sure, is destined to offer solutions for many of the problems presented.

Currently twelve trends in medicine were identified as the most significant.

ADVANCES IN SCIENTIFIC KNOWLEDGE

First, advances in scientific knowledge have had a growing influence on the style of medical practice. The imagination of both the public and the professional in health care has been excited by these advances. Basic concepts regarding medical education, research, and patient care have been changed as a result of what now is known to be possible.

It is almost a truism that scientists who are actively engaged in research are best equipped to teach students about what is new in the world. More important, they alone are equipped to com-

municate the excitement of research to students, and to prepare students for a most important job ahead — to recognize, understand, and accept the changes that will come a decade or two decades or even more from now. The medicine we learned forty years ago is not the medicine we should be practicing today, and what our students are learning today is but a background for what they probably will be practicing forty years hence. Preparation for innovation is one of the most important subjects in the modern medical curriculum, although I do not recall seeing the subject listed by name in any medical school's catalogue. Brown University's tradition of true scholarship and research is a guarantee that the new medical curriculum here will treat this subject adequately.

CHANGES IN SIZE AND COMPOSITION OF POPULATION

Second, modern medical practice has changed and is destined to change even more because of the alteration in the size and composition of our population. In the United States, the population has grown from 76 million in 1900 to near 200 million today. By the end of this century, when the physicians we are training today still will be practicing, the population probably will be 300 million or more. Furthermore, we will have an increasing number of older persons surviving, and a commensurate increase in the need for medical care appropriate to the aged. Even sharper increases in population are to be expected in the underdeveloped countries, for which our country is taking increased responsibility, both for political and humanitarian reasons. The scope of the problem of the underdeveloped nations may be illustrated by a note in the November issue of *Scientific American* (Page 66) in which it is pointed out that the number of illiterates in the world is rising. More than two-thirds of the school-age children in Africa, Latin America, and the non-communist countries are not receiving any form of schooling. In India, for example, the government's expenditure for the education of its 187 million children averages 32 cents per pupil per year, compared with an average of \$600 per pupil in the United States. The problems of medical care for the world we live in is compounded by such illiteracy, and the problem is growing worse because 85 per cent of births on this earth today occur in nations in which 70 per cent of the children will not go to school.

INCREASING INDIVIDUAL HEALTH EXPECTATION

Third, let us return to the immediate problem of providing health care for the people in our own nation. The third identifiable trend is the increasing individual health expectation. Until recently, man has tended to accept illness, plague, and injury as normal events. Today, people believe that health hazards can be eliminated or controlled to

some extent. Few are willing to suffer needlessly. People are being taught to expect good health care. They feel entitled to it, and this places greater demands on the physician. More and more persons are going directly to clinics and hospitals each year for preventative treatment.

INCREASING DEMAND FOR HEALTH CARE

Fourth, there is an increasingly effective demand for health care. Not only are more and more people being born; not only are they becoming more aware of the possibility of receiving good care; but more and more people are willing and able to pay for it. Their demands for proper attention are growing more emphatic and more effective.

These last three factors — increased population, increased expectation, and increased effective demand — make it essential that those of us responsible for medical education take increasingly effective steps to meet demands. Establishing the medical curriculum at Brown University is a move in the right direction, but of still greater importance is the opportunity provided here for discovering and testing new directions in medical education. We must become more efficient in utilizing our resources, in the production of physicians, medical administrators, research scientists, and paramedical personnel.

INCREASING SPECIALIZATION

The fifth important trend is the increase of specialization in medical practice. Today, more than 85 per cent of new physicians enter specialized practice. In addition, there is a rapid growth of clinics providing only specialized forms of care, and general hospitals are being constructed or altered to meet the needs of specialists who deal with certain types of patients. Heart, lung, kidney, and metabolic floors have taken over patients for the general wards.

A broad and sound academic background, with research experience, is increasingly important for the training of a specialist who will limit his attention to the growing body of knowledge within a medical specialty. Brown University will have unique opportunity to provide the best possible general education for the specialist who will explore the frontiers of medical knowledge and utilize new information. Perhaps this is just another way of saying that in an era of specialization our potential specialists must know more and understand it better than ever before.

TECHNOLOGICAL ADVANCES AND NEW EQUIPMENT

The sixth trend in medicine involves the increasing use of technological advances and new equipment. Medicine has profited from the advance of all science. The physician and his co-workers have been placed in charge of an armamentarium that is

(Continued on next page)

virtually beyond belief in its capabilities, variety, and — not incidentally — its cost. Artificial heart pacemakers, artificial kidneys, cobalt bombs, and isotopes, to name just a few of the more spectacular, are becoming commonplace.

To understand and use the complex array of instruments at his disposal the physician needs more knowledge than ever before of mechanics, electronics, nuclear theory, and chemistry. Potential contributions to health from the social sciences and the humanities also are worth noting, and it is indeed gratifying to see that Brown University's curriculum will require students to achieve more than a nodding acquaintance with such subjects.

INCREASING INSTITUTIONALIZATION OF HEALTH CARE

The seventh major change now in progress in medicine is the increasing institutionalization of health care. The importance of the hospital as a primary center for health care is growing tremendously. Physicians are seeing an increasing number of patients as both outpatients and inpatients. Visits to emergency clinics have grown fantastically! In this country there were an estimated 8 million visits to emergency rooms in 1958 — that total had doubled by 1964, and it's still going up. Patients are more sophisticated in recognizing the most effective available service, and emergency clinics often can provide quick, accurate services which cannot be matched elsewhere. Also as an indicator of our physician deficit in 1950, 300, or 5 per cent of all physicians licensed in this country, were trained in foreign schools. Now about 1,500, or a five fold increase, has occurred accounting for nearly 20 per cent.

More than anything else, the trend toward institutionalization of health care is altering the type of medical care available in this country and multiplying the effectiveness of the physicians now available.

TEAM APPROACH

The eighth important trend is the increasing use of the team approach to health care. In 1900, most physicians functioned in their office without even a registered nurse to assist them. Today, there are nurses, dietitians, occupational therapists, psychological counselors, laboratory technicians of all sorts, and even computer programmers and atomic scientists backing up the physician.

Historically, the preference of the physician and the patient has been for a highly independent, one-to-one relationship. This often is not effective medicine today, and it certainly is not *efficient* medicine. The physician can no longer know the details of all the necessary procedures performed in the modern clinic or hospital. Obsolescence is coming earlier and earlier to the physician who does not

maintain a rigid schedule to keep abreast of rapidly moving developments, even in his own field.

While medical education has struggled with the problem, it still attempts to give each student what is referred to as well-rounded education. To accomplish this, the period of formal education has gradually been extended from the freshman year through residency, and still the student has received only about half the formal education and the practical experience he needs to practice by the time he receives his M.D. degree.

When we knew less, there was less to do. A dramatic example of increased ability to provide service would be the case of the blue baby, formerly disposed of quickly after the diagnosis, except for some nursing and usually home care. Today, the same diagnosis may require the services of a team of eight to fifteen physicians, plus nurses and technicians, for many hours. There is every likelihood that health teams will become large, more comprehensive in the range of skills possessed by the members, and more complex in structure. This will further increase the institutionalization of health care.

This trend will be given impetus by legislation creating complexes for the comprehensive care of cancer and heart disorders, and eventually other specific illnesses.

By providing a core curriculum useful to all health workers, eliminating much needless repetition of courses, and preparing students for later specialization, Brown University may make a significant contribution to the education of professional members of the health team.

NEED FOR MORE PHYSICIANS

The ninth trend is an awareness of an increasing need for larger numbers of physicians. This, of course relates to the increased population, the increased ability of physicians to take useful action; increased health expectations; the increased effective demand for health care; and increased specialization.

The need for an increasing number of physicians is basic and is becoming somewhat desperate. Our current inability to cope with most health problems has as its roots the lack of an adequate number of trained doctors. The accepted method of referring to the number of physicians per thousand population is at best a crude indicator of how grave the shortage of physicians is. We know that the ratio of doctors to general population has remained relatively constant over the past few years, but as new schools develop the demands for health care have more than tripled.

Our committee of the Association of American Medical Colleges, seeking new ways to determine the number of physicians needed, interviewed of-

ficers and staff members of all the special societies and the Academy of General Practice. Interestingly, almost all believed the number of physicians in his own specialty was too high, but the numbers were just about right in other specialties. Obviously we must question the perspective of our informants. Answers to the question of how many physicians are needed in the United States must be based on informed guesses. Until we know how many working hours physicians and other health workers put in each day — and more importantly, how effectively these working hours are spent — we can only offer surmises.

Why don't we have enough doctors? To answer this, we must go back to the early 1900s. During the past 60 years, several studies have shown that the prevalence of disease has *increased* as the death rate has dropped and life expectancy has *increased*. As the hygiene movement gained momentum, many leaders thought there would be less and less need for doctors. What these early health spokesmen overlooked is painfully evident now. The conquests were mostly against infectious diseases, which when they struck usually resulted in quick death of subsequent recovery and immunity. Infections, in addition to certain correctable deficiency diseases, took their heaviest toll in children. Their reduction simply made the chronic, debilitating disease of later life more common. To quote the late Allen Gregg, "We are trading mortality for morbidity." In other words, one major paradox is that the more successful we become in the conquest of certain infectious diseases, the more problems we create and the more physicians and other health workers we will need. How many more is not clear, but there is every indication that the demand exceeds the present supply and the problem is critical.

Brown University will help meet this need for more physicians; more important, since Brown is a leader in education and educational innovation, others will be watching. Perhaps the role of Brown as an educator of physicians will be less important, in the long run, than the role of Brown as an educator of educators.

SHORTAGE OF RELATED PERSONNEL

The *tenth* trend noted by the report to the Association of American Medical Colleges was the critical shortage of persons trained in related health fields to work under the leadership of physicians. This shortage was found to be growing even more rapidly than the shortage of physicians.

Nurses, therapists, professionals, and technicians of all kinds must be trained for the health team. They must do jobs that many physicians do not know how to do themselves.

The committee found that despite the need for health personnel, physicians in general were not particularly enthusiastic or aggressive in recruit-

ing or developing assistants. This is, in part, an attitude left over from the days of do-it-yourself medicine. Despite the trends we have noted, many physicians still prefer to regard themselves as individual craftsmen rather than as executive leaders of a team. Perhaps the craftsman's role is more personally rewarding, but the job medicine has to do, even for one patient, is becoming too big for any individual to master.

There is a difficulty in recruiting persons with training in related health fields — the failure of the medical professions and others to provide paths for internal horizontal or vertical mobility. We do not require a mass infusion of untrainable in the medical profession — we need persons trained at university and graduate levels in physiology, cytology, psychology, and other paramedical specialties, or persons capable of functioning at such levels. We need intelligent and ambitious persons. To put it bluntly, the kind of people needed for the medical team are not going to be satisfied to work forever in positions with no real opportunity for advancement.

The pay and prestige of physicians is very high at the present time, but the pay and prestige of others needed in the effective practice of modern medicine frequently is very low. The entire structure of institutions and of health teams may have to be revised before we can recruit the men and women we need.

Brown University is in an admirable position to attack a major aspect of this problem. A core curriculum will provide unique opportunities for students fully qualified to enter clinical training to specialize in fields of their own interest. They will be able to work effectively in such areas as hospital administration, physiology, biochemistry — and they will be qualified to take clinical training later, if they so desire. They will be able to communicate with the clinically-trained physician at any appropriate level.

It may be suggested that such persons would be overeducated for their jobs, since the physician must necessarily remain captain of the medical team. However, persons who are not overeducated for their jobs are undereducated, for no one is qualified to say what information will never be urgently needed. If a person is not able to do more than his present job, he will be restricted to doing his present job without understanding, and this is dangerous in medicine.

We have spoken of the physician as the captain of a medical team, but it must be realized that the captain of a team is not the same as a captain of a ship. The captain of the team does not always carry the ball; he is not able to perform all the functions of other members of the team, and there-

(Continued on next page)

fore he must earn the right of leadership by common consent. A problem that remains to be solved in the organization of medicine is teaching the private physician, financially and socially, to be captain of a team rather than captain of a ship, for the latter role may seem far more familiar.

EXPANDING ROLE OF GOVERNMENT

The eleventh significant trend analyzed by the committee is the expanding role of the government in health. The government's interest in health for many decades was centered almost exclusively in the U.S. Public Health Service — quarantine, control of communicable disease, sanitation, and the administration of a few specialized hospitals — and in the Armed Forces. It was not until the establishment of the National Institutes of Health that the government became an important force in the broad field of medicine. Beginning then and continuing through last year with the enactment of the Medicare program, there has been enormous growth. Out of \$37 billion spent for health and medical care each year, about 25 per cent was spent by public agencies, according to a recent survey. Medicare undoubtedly has pushed this up to at least 30 per cent — almost a third of the nation's health bill. In some quarters, there is much concern about whether the government should have such a large interest in medical education, research, and service, but we are not here to discuss history. As an illustration, not too long ago federal support was thought of as "soft money" and to be avoided for long-term stability. In contrast, I read the following in a proposal to a Foundation: "The University recognizes the necessity of making this project self-supporting at the expiration of the proposed grant. To this end, it will make a determined drive to secure funds from government sources." So now, federal support is the "hard money" on which we plan long-term budgets. What we must do is guide the course of government interest in health in the most intelligent manner.

RIISING COSTS

The twelfth and last trend is that of rising costs. In 1946 the hospital expense per patient per day was \$9.39, and in 1965 it was \$41.58. These figures exclude all costs not billed by the hospital to the patient. We can expect this trend of rising hospital costs to continue, and we can easily identify many reasons: The general inflationary trend; the increased cost of construction and maintenance; the increased professional skills and numbers of hospital personnel which must be paid for; the cost of special equipment now available.

To paraphrase a statement made earlier; we can do more now, so it costs more.

We have listed twelve major changes in medical practice in our time. This has not been a historical

discussion; all these changes are in progress right now, and show every indication of continuing.

NEW SCHOOL AT BROWN UNIVERSITY

The plans for the young medical school at Brown University show a keen awareness of these trends. The graduates of Brown will be as well prepared as any graduates to cope with them — indeed, they should be better prepared than most.

Let's take a little closer look at the local situation. What does a medical school offer a university? The modern medical school is no longer a prestigious ornament with a professional emphasis. It is an educational center or complex whose faculty are primarily full time in the sense they devote their thinking and energies to reproduce their kind.

The modern new center provides a suitable educational setting, not only for the aspiring physician but also for a large number of students in a variety of health-related activities. It is no longer sufficient to think of medical education as satisfied when the disease process and curative measures are learned. Although biologically oriented, the curriculum now must be well supported by the physical sciences. Computers, lasers, isotopes and all sorts of electronic equipment are indispensable in medicine. Any graduate who expects to keep abreast of the results of the massive research program would be well advised to have a solid comprehension of mathematics.

There is also the awareness that social and humanistic considerations are becoming more important for both teacher and student. Many medical schools have added a pastor, rabbi, or priest to their faculty since they can perform a very important role assisting the physician with some of the severe emotional problems of the patient and his family.

The medical school has a heavy investment in research, not only to produce new knowledge but particularly to serve the creative educational role. There has been a massive infusion of funds from both public and private sources particularly within the past two decades for this purpose. The broadness of the base of the enormous programs make any medical school a heavy intellectual contributor to the total university environment.

In any organization or institution there are times when it is most propitious to launch a new division or program. Brown University is in that enviable position in relation to its medical school. It is a strong university with a rich intellectual tradition, already possessing those complimentary disciplines essential to success.

I will close with a brief reference to the financial picture. As we have noted, federal and state governments have an abiding and substantial interest in medical education, particularly the research aspects. In 1956 when I was serving as Undersecretary to

President Eisenhower, leaders in Congress interested in health stated that the administration's request for \$98 million for research was entirely inadequate. The amount was increased by \$28 million to a total of \$136 million. The positive attitude of Congress is quite clear as demonstrated by similar annual increases. By 1965 — less than a decade later — the total had exceeded a billion dollars.

In the intervening years laws have been established providing matching funds for the construction of education, research and library facilities; loans and scholarships have been provided for medical and other health professional students; educational improvements grants and general research grants have been instituted; the full costs of research and research training have been more nearly paid, based upon a formula allowing for variations in cost from institution to institution; and the growing responsibility of medical centers to provide leadership in coordinating medical services and providing postgraduate education for practicing physicians within their areas has been recognized through new regional cooperative programs.

Private support for medical education and research has not decreased as the result of such large government grants. This is fortunate, for the need for funds is great. A private university can experiment with new directions in medical education, and such experiments are essential if future improvement is to be expected. This is the promise of Brown University.

POTENTIALS OF BROWN UNIVERSITY PLAN

I would like to speculate briefly on the potential importance of the Brown plan. First of all, we have emphasized the team approach in modern medicine. The more we work on the development of a core curriculum in the biological and medical sciences, the more effectively we will train ancillary personnel for the medical team, and the more we will open the gates to occupational mobility within medicine. A core curriculum will throw a lot of people into the manpower pool. These people are needed, and medical administrators will have to learn how to fish them out. They will do this, of course, by learning to offer the right bait — opportunity for public service compensation and the chance for advancement.

I would like to note that the tie-up in medical schools comes in the first two years of training. At medical schools we are basically clinically oriented. We have difficulty in recruiting personnel to teach academic courses — anatomy, biochemistry, physiology, histology. Well recruiting such personnel and administering academic courses is just what our parent institutions — the universities — do best. The six-year Master's program of Brown, to be

followed by clinical training elsewhere, may be an important pattern in the future.

Let me indulge in further speculation. Many of our first-rate hospitals have excellent clinical training facilities for interns and residents. With comparatively minor extension of existing facilities, they could provide externships for graduates of the six-year program, even though such hospitals may not now be formally affiliated with medical schools. We must always be on guard against lowering standards, but we must also be on guard against perpetuating outmoded practices just because they have been useful in the past. I would venture to say that a six-year graduate of a sound medical curriculum, who subsequently spent a three-year directed internship in an outstanding hospital, would be as qualified to practice medicine as many present medical school graduates. As the need to expand our output of physicians grows more critical — or desperate — we may well consider the possibility of such affiliation leading to the M.D. degree. The curricular requirements for the M.D. degree written into law in some states are as obsolete as the hand saw.

May I again congratulate Brown University on its long history of achievement, its academic traditions, and on its spirit of enterprise and public service in embarking on this new medical school at a time when it is needed so greatly by our nation. I will offer what sympathy I can to the trustees and administration of this University for the problems I know you will encounter in the days ahead — but they are important and they are good problems.

Finally, let me urge you not to compromise, not to settle for harmless and harmonious mediocrity, and not to abandon the quest for new directions in medical education. Your success will bring ever increasing support from your community and will inspire others to dare to follow along your path. My hat is off to those in this institution who deserve credit and great applause for creating such a wonderful instrument for the public welfare.

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University Program in Biomedical Sciences Has Unique Features

FIORINDO A. SIMEONE, M.D.

The Author, *Fiorindo A. Simeone, M.D., of Cleveland, Ohio. Director of Surgery, Cleveland Metropolitan General Hospital; Professor of Surgery, Western Reserve University Medical School.*

The past decade has seen the establishment of at least eight new medical schools. Therefore, today's ceremony is not a novel one. Nor would it bear anything but passing interest, were it not for the fact that today's groundbreaking serves notice that Brown University has accepted as a major undertaking its program of education in the biomedical sciences; and this particular program is not like any other.

I should like to comment on some of the unique features of this program: Noteworthy is the manner in which it was conceived and born. There were countless hours of deliberation by responsible individuals. Discussions were unhurried, unpressured and unencumbered by preconceived ideas.

The planning committee could not have overlooked the obvious fact that a program in the biomedical sciences carries serious financial implications. Buildings and equipment for work in the sciences are so expensive that costs are expressed in megadollars. Besides, buildings and equipment *per se* would be of little use without personnel to use them for teaching and research. Personnel must be recruited in adequate numbers, and supported, so that they will not be so burdened with duties that they will have little time for creative thought.

The era has long passed when a medical school could operate by appointing a Faculty of one, as Dartmouth did in 1797 when it appointed Dr. Nathan Smith as its first Medical Faculty. Albeit a Harvard graduate, Dr. Smith found that he could no longer do all the teaching alone, after having done it for 12 years. Today, Medical School Faculties number in the hundreds.

Perhaps the committee felt much as I do with regard to fiscal matters. When I need money quickly for a particular project I simply go to our Administrator or to our Dean, and miraculously the funds are made available. Admittedly, my choice of word in "miraculously" leaves something to be desired.

*An Address Delivered at the ground-breaking ceremony for the Bio-Medical Complex at Brown University, Providence, R.I., on July 21, 1966. Reprinted with permission from the Brown Alumni Monthly, (October, 1966 issue).

I am forever impressed by Dr. Keith Cannan of the National Research Council. I served on one of his committees. When asked if there is money for a suggested program, his reply always is, "No, but if the idea is a good one, the money for it surely will be forthcoming."

AN IRON CURTAIN THAT NEEDS TO BE LIFTED

The concept and design of the program in biomedical sciences at Brown make it indeed a good program, an exciting one, a program which will be emulated. It surely will be supported by those interested in the care of the patient in this community, by friends of medical science, and by friends of the University.

I should make mention of what I think is particularly good about the program as planned at Brown. Fundamentally it is based on the philosophy so well expressed by Mr. Barnaby Keeney in the statement: "Our Society has two great medical needs. One is for more and better people to apply the new medical science and the other for more and better people to discover the basic knowledge and find ways of applying it." To satisfy these two needs, the iron curtain which in the past has separated discovery from application must be dissolved.

Let me give an example in connection with the discovery of Penicillin: Alexander Fleming, of St. Mary's Hospital Medical School in London, was interested in substances which inhibited and killed bacteria. While inspecting a plate culture medium he observed a colony of fungus growing as a contaminant.

Such contaminants are common. They had been observed many times before and have been seen many times since. However, on that day in 1928, something special caught Dr. Fleming's eye. He noted that while there were colonies of bacteria growing as usual throughout the plate, there were none nearby the colony of mold which proved to be *Penicillium notatum*. Here was born the important biologic concept that organisms can produce chemical substances which can inhibit the growth of other organisms or can actually destroy them.

This is an interesting story, but the one reason for my mentioning it is that, although Fleming predicted that this substance could be useful in the treatment of infections in man, 12 whole years passed before Florey and Chain tried the material clinically at Oxford. It was 14 years before the ma-

terial was used in 12 battle casualties of the British Eighth Army in North Africa. Man paid a price in countless lives for this unbelievable gap between discovery and application. Our curriculum in the medical sciences is designed to make this gap infinitesimally small or altogether absent.

SOME WILL BE LED INTO CAREERS IN RESEARCH

Our objective is to graduate students thoroughly familiar with the sciences. They will understand many disease processes as derangements in cellular biology at the molecular and sub-molecular level. Many conditions will defy understanding, not because they are mysterious, but because basic knowledge is inadequate. Some of our graduates will be so stimulated, by our lack of knowledge, as to adopt careers of research in the medical sciences in order to provide more biologic, chemical, or physical information for the understanding or disease processes. Others will prefer to *apply* this information in the clinic. But there will not be a gap between the two.

I must make one more comment regarding the curriculum, namely its effects upon medical practice in our hospitals and elsewhere: The community will benefit from this development because, if the over-all program is to be qualitatively acceptable to a University, then the quality of medical care must be of the highest order. One cannot do superior clinical teaching if the clinical practice to which the University's students are exposed is not of the highest order.

To be sure, the University can directly be responsible not for service, but for maintaining high standards of quality of care and clinical management, and then only within those services in which its students participate. Nevertheless, in very short order, all will follow suit. In these days of generally increased interest in medical care, what better way is there for strengthening the ties between a University and its community?

Finally, let me congratulate all who have been connected with the development of this program. I know the work has been hard, but the progress made to date must be very gratifying to them. I must congratulate, too, President Heffner. He finds himself guiding an infant program, but a very lusty infant; an infant whose development is not predetermined, but one which can develop in several different ways. I join the host of people who wish him well.

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MEDICAL EDUCATION IN A COMMUNITY HOSPITAL*

Arrangement With the University Center Will Produce Reciprocal Benefits; Private Patients Must Be Used for Teaching

FRANCIS R. DIETZ

The Author, *Francis R. Dietz, Executive Administrator, Memorial Hospital, Pawtucket, Rhode Island.*

We, in the United States, are an educational minded society. We stress upon all high school students the importance of a college education. This philosophy is further exemplified if we compare the number of students pursuing Masters Degrees today, in comparison to ten years ago.

The stress and need for post graduate education is continually brought forth when one examines the number of seminars and courses that are conducted in any given field.

But does this movement in our society towards continuing education apply to the medical field and, if so, what part does the community hospital play in this program?

Medicine exists to serve society. In common with other socially useful professions, it must ever be responsive to the needs of the society it serves. Edward Kuhn, President of the American Bar Association, was speaking to lawyers, but he might just as well have been addressing physicians when he said, "If you don't serve the public as it needs to be served, the public will force some kind of change in the profession."

Medicine must be responsive to society's demands, but physicians are the persons who best know the limitations, the possibilities, and the expected directions of changes in the medical practice, and this fact imposes upon them the obligations of deciding how the health needs of the society can best be met. The health and medical aspirations of the nation, like many other national goals, are largely determined outside of medicine, but it is within medicine that the means of achieving them must be created.

I would like to draw your attention to some of the major trends affecting the medical practice, for they must be taken into account in determining the educational needs of young physicians. These changes include the following:

- 1) Increasing knowledge and the resulting increase of specialization.
- 2) Rising expectations and demands for medical and health care.
- 3) The changing geographic distribution of the population, and

- 4) The increasing institutionalization of medical practice.

Doctor Lowell T. Coggeshall's report to the association of American Medical Colleges, entitled "Planning for Medical Progress through Education" covers in detail what is meant by these statements, and I refer you to this report for fuller comprehension.

In recent times, the medical economic status of the populace in the United States has changed, so that the teaching centers are looking for patients, and the community hospitals are looking for teachers. New concepts and attitudes are emerging from both groups that, if properly developed, can lead to a sound position for medical education in both areas within the scope of the present independent system of medical care.

The community hospital, on one hand, needs for its staff and patients the benefits of new developments in medical knowledge, technics and equipment, and coverage by a competent house staff, which can be obtained only when an adequate program of academic training is provided. The university centers, on the other hand, need clinical material for research and teaching, and an opportunity for their house staffs to experience the problems of managing patients in the setting of the community and private practice. Since this is a two-way street in which each group has something vital to offer to the other, it seems reasonable to suppose that, with proper give and take from both sides, general benefits will accrue.

In the community hospital certain new attitudes regarding this development need to be fostered. Medical staffs, trustees, and administration have to face the fact that time, money, and space are required to produce medical education programs that will keep their staff up to date, attract interns and residents, and satisfy the standards of academic teaching, if they hope to have affiliated programs and other help from the university centers. Conversely, the teaching centers, once they are assured of proper training facilities at the community hospitals, need to trust their students, interns and residents to periods of study or affiliation with them, and to strengthen their programs by offering help in planning and the actual day-by-day teaching.

The general public also needs to develop new attitudes toward its role in medical education. The

Delivered at a Meeting of the Pawtucket Medical Association, at Pawtucket, R.I., November 17, 1966.

concept of the past that teaching programs should use only "charity" and "service patients" as their subjects has to be altered, in view of the fact that the recent extensive development of insurance programs has elevated many such patients to "private care" status, thus rendering them unavailable. The private patient must become the teaching case, and it is my opinion that this is the rock on which good medical education of the future must be founded. The program by which it is developed in individual hospitals may vary. Tact and diplomacy are highly necessary ingredients, but firm adherence to this principle is fundamental to its success.

The planning and implementation of a good program of medical education in a community hospital is a major effort. In some aspects, it may be more difficult and frustrating than producing the academic program in a teaching center. Residents and interns are harder to obtain and are usually of foreign background. Expert teachers are fewer, and classroom and laboratory facilities are not readily available. Many community hospitals are finding that the functions of running such programs is best placed in the hands of a member of the staff who devotes a definite portion of his medical life to this purpose, and is paid for these services accordingly. Some hospitals have appointed a junior member of the staff, fresh from academic exposure, to the position of "Director of Medical Education."

This is an excellent step in the right direction, but, in my opinion, a more comprehensive program that involves the professional life of the whole hospital may be achieved if a senior member of the staff, preferably the Chief, is given the task. The program profits by his authority, continuity, relation with the whole staff, chiefs of other services, trustees and the administrator. His job includes not only planning and administering the actual teaching exercises for staff, interns and residents, plus the usual responsibilities of chief, but also includes the recruitment, licensing, and counseling.

For medical education to be of good quality in a community hospital the program must be fully backed by the members of the entire medical staff. It should be explained to them and approved by them in its broad aspects. They will need to contribute to the program either as active teachers in formal exercises, or in the role of friendly advisors to the house staff and students in discussing the diagnosis and treatment of their individual patients. Imparting the knowledge that he has gained in handling people, as well as diseases, is a major facet of the program and requires time and patience. It is, in part, for this sort of training that university teaching centers will send interns and residents on affiliation to community hospitals. Immediate rewards to the practitioner will result

in the increased care and attention afforded his patient by the house staff. Members of the staff may also be very helpful by explaining to their private patients the requisite reasons for the "all patient" teaching program.

In return for their positive participation in the teaching program, physicians need to be reassured that they are still completely in control of what happens to their patients. Rounds and other teaching conferences on private patients should be purely for the purpose of education, and not directed at controlling or directing care.

Physicians, busy with practice, respond to active medical teaching like an old firehorse to the sound of the siren. For many of them, the program of medical education, provided by their local hospital, is their main source of contact with the "new medicine."

If stimulating material is provided, they will extend themselves to get it, but they cannot be expected cheerfully and regularly to attend repeated meetings in which nothing is provided but a hurried review of the multiple routine bits of "bad news of the month." In this behalf, new technics such as two-way radio, "question and answer" programs, and medical films have proved useful, and the development of "Journal Clubs" has promoted an intellectual climate in which a progressive approach to medicine may flourish. In my opinion, the creation and maintenance of such a positive and progressive program of education for the medical staff results in more benefits to the care of the patients, rather than the routine required of work done and mistakes made, necessary as they may also be.

Many community hospitals, by themselves, are not going to be able to support the pyramid of house staff training that is being required, quite properly, for accreditation. Affiliation with other community hospitals and university training centers for sections of their program will be necessary. For mutual relations of this type to survive, it is necessary that the real needs of each institution be recognized and satisfied. Recognition by university centers that large and interested areas for the education of their house staff are available in community hospitals, and realization by the latter that, to justify such an exchange, they must support a really top notch program in order to bring about a durable and profitable relation for both groups. The teaching center can provide exposure for the community man to new ideas and thereby, at the same time, help to staff its own clinics. Such exchanges need to be encouraged.

The medical staffs and boards of trustees of community hospitals are learning that, to promote

(Concluded on Page 115)

CESAREANS GALORE*

With Confidence and With Luck She May Enter the Marathon

ALFRED L. POTTER, M.D.

The Author, Alfred L. Potter, M.D., of Wakefield, Rhode Island. Former Chief of Staff, Providence Lying-In Hospital, Providence, Rhode Island.

WHEN YOUR PROGRAM COMMITTEE suggested "Cesareans Galore" as a title for this report of thirteen sections performed on one patient I was as puzzled by what galore meant in that context, as perhaps you are. The dictionary defined galore as plenty, and not with the meaning implied with a falling inflection, plenty or more than enough. Another meaning given was "as many as you want." That seemed like a good title, for these babies were very much wanted. Before each operation the patient and her husband exacted a promise that nothing be done to compromise her future child-bearing unless absolutely required.

The thirteen operations were performed at the Providence Lying-in Hospital by the same operator with eleven different assistants. The patient was a graduate nurse, twenty-six years old, in excellent health, and with an uneventful past history except for an appendectomy at the age of twelve. The estimation of the duration of her pregnancies was helped by a history of normal menstruation, which was regular every 28 to 30 days, when she did menstruate.

THE FIRST ROUND

In March 1941, nine days beyond her expected date of confinement, a sixteen hour labor with hard two or three minute pains for the last two hours found the fetal head unengaged and over-riding the symphysis. The membranes were intact, but we had given up William's dictum which required rupture of the membranes as part of a test of labor. Cesarean section seemed indicated. My decision to operate was reinforced when I met her husband for the first time during this labor.

I had once remarked to my office nurse that to know the size of the husband's head and his general bony conformation, or, in practical terms, the size of his hat and shoes, would be of far more value in obstetrical prognosis than such measurements in vogue as his wife's intercrural distance, Baudeloque's conjugate, or the shape of Michaelis'

rhomboid. Thereafter I began to notice such data as shoe sizes on our prenatal history records, but soon we gave up this line of questioning, for patients seldom knew the sizes and would ask if a new hat went with the delivery. I still think the idea had some merit, however.

When I saw the rugged build of this expectant father and his good sized brachycephalic head which his progeny might be expected to inherit, there seemed no reason to prolong labor. In 1941 our Tarnier forceps was getting rusty from disuse. High forceps delivery had become a procedure of the past, not that I had not done my quota. It was lucky for this patient that this was so, as was also true of classical Caesarian section. For many years the low transverse section had become routine, and any member of our staff who used the classical would have been ostracized.

It is hard for the present generation of obstetricians to understand why obstetrical hospitals and services are appraised by hospital examiners and, to a considerable degree, accredited on their section rate. The inspector may be an internist or a general surgeon, but is old enough to have lived through the earlier years of obstetrics. He may not give due weight to many other factors involved in judging a specialized hospital, but he does remember that in 1922, which was when I began to practice, the section mortality rate for the United States was 20 per cent. One woman in five who underwent the operation died.

Ten years later Plass¹ reported a series of over a quarter of a million deliveries with a section incidence of 0.8 per cent and a mortality rate reduced to 9.5 per cent. Arnold² in a series of over three-quarters of a million deliveries for the years 1934-1939 gave an incidence of 2.5 per cent and a mortality of 4.7 per cent. Over the years the incidence rose and the mortality rate fell. Many hundreds of operations are now reported without a casualty, but the memory of those early years lingers.

Much of this increased safety is due to the adoption of the low transverse type of section which Doctor Louis Phaneuf helped to introduce. Wherever the low operation replaced the classical, even though the operators and the indications were the same as before, the mortality was cut in half. Mind you, this was before we had the sulfa drugs, before the antibiotic era, before blood banks became nearly universal, and before obstetric anesthesia had im-

Delivered at the District I Meeting of the American College of Obstetricians and Gynecologists, at Providence, R.I., October 7, 1966.

proved. To belabor this point a little more, because some otherwise reputable men still condone the classical as routine, Lull³ pointed out in 1933 that in 573 sections, which was an incidence of 2.4 per cent of 25,000 hospital deliveries in the Philadelphia area, the mortality rate was 6.8 per cent for the classical and 3.8 per cent for the low flap operation. In 1926 the Providence Lying-in Hospital had adopted the low flap operation with equally happy results.

Therefore, in March 1941 this patient was delivered of an 8 pound boy by low transverse section. The lower segment of the uterus was found very thin and the fetal head was over-riding the symphysis. This was the only admission to the hospital in which the patient showed any morbidity. Her temperature was 101 on the third and fourth days. The nurses' notes reported that the "lochia was very foul" and that on the tenth day "the patient expelled cat-gut sutures." However, according to the custom of the time, she was allowed out of bed on the tenth day. Incidentally, her room rate was \$7 a day.

A PATTERN ESTABLISHED

Fourteen months later, in May 1942, she entered the hospital for elective section four days before her due date. After a fifty mile drive she was admitted in mild labor. This subsided shortly after her arrival, and on the next morning an 8 pound 2 ounce boy was delivered. The site of the first incision was firm, in spite of the mild infection which had followed that operation.

Thirteen months after the second operation a third baby, a 7 pound 9 ounce boy, was delivered without trouble.

Eleven months later, in May 1944 and ten days before her due date, a 6 pound 14 ounce girl was delivered. At this operation, when the bladder was reflected exposing the lower segment of the uterus there was a small area, a little window, through which beyond the transparent membranes flecks of vernix could be seen floating. By transversely enlarging this opening the baby was delivered. Since my assistant and I could see no valid reason for hysterectomy, and according to my promise, the operation was finished as usual.

One of the great advantages of the low transverse operation was demonstrated here. The classical operation had been credited with an incidence of rupture in subsequent pregnancies of 4 per cent, equally divided antepartum and intrapartum. The low operation, as far as I know, has an incidence of rupture of 0.25 per cent, one-sixteenth of that of the earlier operation. More importantly, perhaps, in those fewer instances in which rupture does occur, the placenta in its fundal implantation is not involved. Often, as in this case, the rupture may

be only a threat or incomplete. However, the result would have been unpleasant if this patient had been in active labor.

A three months complete abortion, which occurred at home, was followed by the fifth section in October 1945. An 8 pound 12 ounce boy was delivered. This was followed by another two months abortion.

In the sixth section in May 1947, a 7 pound 5 ounce girl was delivered without difficulty, although it was noted that the bladder flap was a bit adherent in the exposure of the lower uterus. The Rh determination of the blood had now become part of our prenatal examination. Her blood was found to be type Rh O, positive. No problem here.

Fourteen months later in July 1948, a 7 pound 8 ounce boy was delivered. In this operation the transverse incision was carried too far to the left because of an underestimation of the usual rotation of the uterus, a misadventure which some of you may have met. A large vessel, probably the left uterine artery, was ligated. The lower segment was found as sound as ever.

(Continued on next page)

The meeting of District I, held October 5-7 in Providence, Rhode Island, was well attended by 226 Fellows and guests and at least 62 wives, according to final registration figures.

Highlight of the meeting was the final paper, "Cesarians Galore," presented by Dr. Alfred L. Potter, emeritus chief-of-staff of the Providence Lying-In Hospital. The tired audience with their heads already bulging from two days of interesting and informative scientific presentations listened with rapt attention as Dr. Potter detailed in his dry, humorous style a series of 13 cesarean sections which he had personally performed on a single patient, resulting in 13 full-term healthy infants. Appropriate comments on advances in obstetric techniques over the years were injected into the case history. Dr. Potter concluded that there was not necessarily a limit to the number of cesarean sections that could be tolerated by a courageous and healthy mother. The meeting closed with a standing ovation indicating admiration for a dauntless obstetrician.

... From the *Newsletter* (Nov.-Dec., 1966)
American College of Obstetricians and
Gynecologists.

In November 1948 and in March 1949 her local doctor reported abortions of two or three months. Therefore, it was twenty months after the seventh that the eighth section was performed in March 1950. Seven days before her due date an 8 pound 5 ounce boy was delivered. During this pregnancy she showed hyperglycemia, which was not regarded as diabetic by a consultant, and in the seventh month she suffered an attack of viral pneumonia. It is worth adding that this baby at two months of age recovered from pneumococcic meningitis.

Seven months later, in October, the patient was admitted to the hospital in her home town following an early abortion. This required a blood transfusion by her local surgeon. In none of her sections did she receive any blood. The blood loss at the operations was not much more than in many vaginal deliveries. She thus escaped the not inconsiderable danger of a transfusion reaction or of serum hepatitis.

Six days before due in November of the following year an 8 pound girl was delivered by her ninth operation. The operation note was made that "sterilization from an anatomical or structural standpoint does not seem indicated."

THE LARGEST OF ALL

The tenth section was in January 1953. This baby weighed 9 pounds 5 ounces, the largest of the series. In this operation the baby's head was easily delivered through the uterine incision, but, because I had underestimated the proper size of the abdominal incision, both the baby and I were temporarily embarrassed until this was enlarged to allow the delivery to be completed.

In April 1954 the eleventh section produced an 8 pound boy. The bladder was more difficult to reflect. The transverse incision had to be made a little higher than before, but was still well down in the lower segment. The usual stay in the hospital had now been shortened to eight days from the fifteen of the first admission.

In May 1956 a dilatation and curettage had been done following an incomplete abortion in her home town. Perhaps you can understand my feeling when she presented herself for her twelfth operation. I wondered whether or not that curettage had weakened the scarred uterus. The section was performed in May 1957, and my fears proved needless. This baby weighed 8 pounds 10 ounces.

In December 1958 she underwent what we must now presume to be her last Cesarian section, the thirteenth. A girl weighing 7 pounds 7 ounces was delivered. The bladder was quite adherent, but the uterine incision could still be made low in the uterus and be well covered by the flap. Following this operation she was out of bed on the second post-operative day and, but for a fifty mile drive

home, would have left the hospital earlier than the ninth day. At her postpartum visit the patient and her pelvis were normal in all respects.

She nursed all her babies. All are now living and well except one who died following an accident when two years old. None of these babies was premature. Their birth weights ranged from 6 pounds 14 ounces to 9 pounds 5 ounces, and averaged 8 pounds 4 ounces. Prematurity, one of the common hazards to an infant in elective sections, was avoided by operating as close to the due date as could be decided by date and examination. As you know, it has even been advised that labor be allowed to start before operating, but I did not dare risk that under the circumstances, nor did I need to.

DISCUSSION

There were never any peritoneal adhesions. The last section was like the first in this respect. Perhaps some patients are prone to form postoperative adhesions, but much can be done to avoid them by treating the peritoneum with proper respect. Any walling off of the operative field, if necessary, should be done gently and with non-traumatizing material. With spinal anesthesia, which this patient had available in her last four operations, little packing is needed. Peritoneal closure must be properly done. In these operations a continuous Lembert suture was used, rather than a slightly more rapidly placed over and over suture. The Lembert leaves no raw surfaces or exposed cat-gut to favor adhesions.

The method of closing the uterine incision may be debatable, but I am convinced that the one used in these operations gave good results. A row of interrupted figure of eight sutures was used for the first layer. Superimposed was a running mattress suture, a Connell continuous mattress suture, which in this instance uses the firm aponeurotic-like superficial layer to back up the first sutures. Since this first row serves both for hemostasis and for tissue approximation it is done in a manner contrary to all surgical principles, except as applied to this very vascular tissue which is about to undergo rapid physiological atrophy or involution. In any other tissue tying sutures tightly enough to control bleeding would cause necrosis and interfere with their other purpose, that of splinting the tissue while healing. I am sure that it can be demonstrated that using a first row of figure eight interrupted sutures rather than a continuous suture considerably shortens the transverse length of the incision. I am equally certain that such a suture is more effective in hemostasis than is a continuous suture. In a tissue which is subject to such contraction and relaxation as is the uterus, the interrupted suture more effectively seals out, or seals in, the uterine contents.

(Continued on Page 116)

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Influenza virus

*Protein shell enclosing
the core of nucleic
acid (RNA)—artist's
representation*

The incidence of influenza A₂. In this country, where influenza is one of the leading causes of morbidity, influenza A₂ (Asian) continues to be a serious medical problem. In 1957 influenza A₂ was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A₂ (Asian).

What is Symmetrel[®]? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A₂ (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presentation

What Symmetrel® (amantadine HCl) means to you

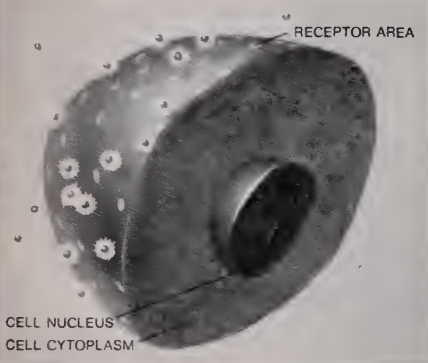
- ...the first and only oral chemical agent to prevent influenza A₂ (Asian).
- ...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.
- ...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.
- ...specifically active against all influenza A₂ viruses tested to date.
- ...not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.
- ...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

- ...possible immediate influenza A₂ protection when taken following suspected contact.
- ...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A₂ is especially hazardous.
- ...a high degree of safety in clinical use.
- ...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

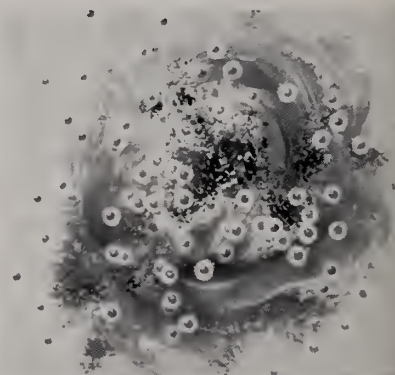
How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

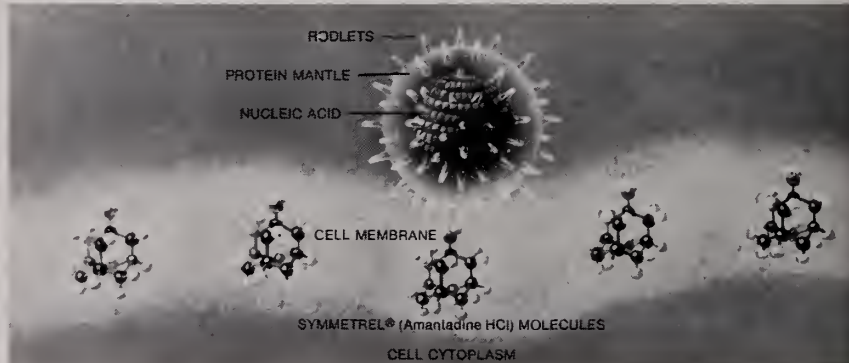
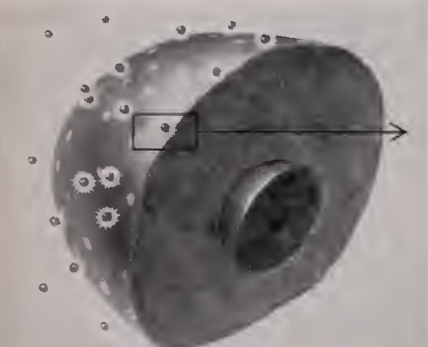


2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion¹



Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

1. "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Haff, R. F.; and Goldsby, R. A., *Journal of Bacteriology* 90,623 (1965).

Safety of Symmetrel[®] Confirmed. When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Prescribing Information

Indications: "Symmetrel" is indicated for the prevention (prophylaxis) of influenza A₂ in persons of all age groups. Early use is recommended, preferably before or as soon as possible after actual or suspected contact with individuals suffering from influenza A₂. "Symmetrel" should especially be considered for high influenza-risk patient groups such as those suffering from chronic debilitating diseases and elderly persons.

Contraindications: Not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.

Warnings: Administration to patients with central nervous system disease, particularly geriatric patients with cerebral arteriosclerosis, and patients with a history of epilepsy or other "seizures," requires strict observation for possible untoward effects (see Adverse Reactions). Patients taking psychopharmacologic drugs, central nervous system stimulants, or alcoholic beverages should be observed for possible evidence of intolerance. Those patients who experience central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important.

No teratogenic effects have been seen in reproductive studies in rats and rabbits. Studies in pregnant women have, however, not been done and use of this drug in women of childbearing age should be undertaken only after weighing the possible risks to the fetus against benefit to the pregnant patient. It should not be administered to nursing mothers since it is not known whether the drug is secreted in the milk.

Precautions: Ineffective against bacterial infections. Patients should be observed for idiosyncratic reactions as with all new drugs. Geriatric patients with pre-existing serious medical illnesses with mental or physical deterioration should be followed carefully medically while taking "Symmetrel." (See Adverse Reactions.)

Adverse Reactions: With higher than indicated doses manifestations of central nervous system effects such

as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: Adults: Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: Capsules: Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.

Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.



Symmetrel[®]

(Amantadine HCl)

A molecular barrier to virus penetration

arrest diarrhea

in • gastroenteritis • acute infections



LOMOTIL[®]

Each tablet and each 5 cc. of liquid contains:

diphenoxylate hydrochloride 2.5 mg.

(Warning: May be habit forming)

atropine sulfate 0.025 mg.







Effectiveness: Lomotil possesses a unique degree of effectiveness in both acute and chronic diarrhea.

Convenience: Lomotil is supplied as small, easily carried, easily swallowed tablets and as a pleasant, fruit-flavored liquid.

Versatility: The therapeutic efficiency, safety and convenience of Lomotil may be used to advantage alone or as adjunctive therapy in diarrhea associated with:

- Ulcerative colitis
- Acute infections
- Irritable bowel
- Regional enteritis
- Drug therapy
- Food Poisoning
- Functional hypermotility
- Malabsorption syndrome
- Ileostomy
- Gastroenteritis and colitis

Dosage: For correct therapeutic effect—Rx correct therapeutic dosage. The recommended initial daily dosages, given in divided doses, until diarrhea is controlled, are:

Children: Age	Total Daily Lomotil Dosage	Lomotil Liquid Dosage (Each teaspoonful [4 cc.] contains 2 mg. of diphenoxylate HCl)
3-6 months	3 mg. 	½ tsp. 3 times daily
6-12 months	4 mg. 	½ tsp. 4 times daily
1-2 years	5 mg. 	½ tsp. 5 times daily
2-5 years	6 mg. 	1 tsp. 3 times daily
5-8 years	8 mg. 	1 tsp. 4 times daily
8-12 years	10 mg. 	1 tsp. 5 times daily

Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily) Based on 4 cc. per teaspoonful. Maintenance dosage may be as low as one-fourth the initial daily dose.

Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be kept out of reach of children since accidental overdosage may cause severe respiratory depression. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

SEARLE

Research in the Service of Medicine

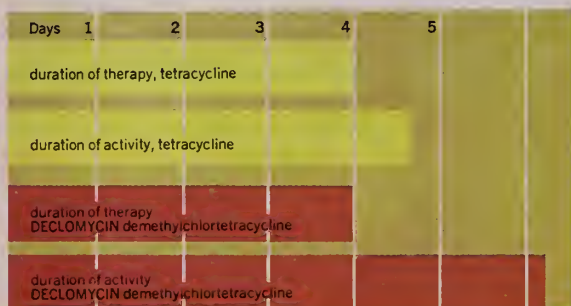
why wonder about a drug

when you know

DECLOMYCIN[®]

DEMETHYLCHLORTETRACYCLINE

produces 1-2 "extra" days' activity



1-2 "extra" days' activity

after the last dose to protect against relapse

one 300 mg tablet b.i.d.
OR
one 150 mg capsule q.i.d.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essen-

tial. If new infections appear, appropriate measure should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs most during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If an adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meal since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

419-6-4075





For he's a jolly good fellow



But what does he think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEx SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

**to help establish
a new dietary pattern**

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies. **Side Effects:** Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.



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Pearl River, New York

695-6

PROGRESS NOTES . . .

DISORDERS ASSOCIATED WITH NEWER PSYCHOTHERAPEUTIC DRUGS*

Agents Have Contributed Greatly, But May Cause Adverse Reaction

LAURENCE A. SENSEMAN, M.D.

The Author, Laurence A. Senseman, M.D. of Lincoln, R.I. Chief, Department of Neurology and Psychiatry, Memorial Hospital, Pawtucket, R.I.; Medical Director, Fuller Sanitarium, South Attleboro, Massachusetts.

In recent years a vast number of new drugs has been introduced in all specialties of medicine. Many unusual side reactions, sensitivities, toxic reactions, allergic responses, and congenital defects have been associated with their use. The caution with which the Food and Drug Administration¹ acts on new drugs is a direct result of past experience with these varied and occasionally bizarre reactions. With the rapid advances in psychopharmacology, many unexpected pharmacogenetic disorders have been observed, some of which will be examined in this review.

PHENOTHIAZINES

This group of tranquilizers was first introduced into the United States with chlorpromazine (Thorazine®) in 1954. Many variations and combinations of this drug have since been produced in this and other countries. It is still by far the most widely used psychopharmacological agent. The physician should be thoroughly familiar with its use, dosage and side reactions, and the complications and bizarre reactions which can occur with prolonged use² (Fig. 1).

PHENOTHIAZINES & RELATED TRANQUILIZERS

Neurological Symptoms

Extrapyramidal — Parkinsonism — Neuro-Muscular — Torso Spasm — Torticollis — Purposeless Movements — Grimaces — Restlessness — Extension of the tongue — Convulsive Seizures — Comatose Spells

Automatic Nervous System Involvement

Orthostatic Hypotension
Fainting Spells

Ophthalmic Signs

Blurred vision — Diplopia
Lactation
Dryness of Mouth — Nasal Congestion

Fig 1.

The effects are mainly on the extrapyramidal system, producing characteristic neurological symptoms and often a Parkinson-like syndrome.³ The manifestations, which vary in intensity depending upon the dosage and length of time the patient has been on the drug, include marked rigidity of the body, extension of the tongue, fixed facies, and at times tremor of the extremities. Limpness of the extremities has also been noted.

Psychomotor activity, indicated by restlessness and purposeless movements,⁴ is not uncommon, often causing the patient to complain of being highly tense and nervous and unable to sit or stand still. Further indications are facial grimaces, torticollis, slurred speech and torso spasm, all of which are frightening to patient and family alike.

A common manifestation of affection of the autonomic nervous system by the phenothiazines is orthostatic hypotension. We also have noted this in many patients on other psychotropic drugs. The blood pressure of such a patient will drop sharply upon his assuming the erect posture after sitting or lying. The symptoms usually described are weakness, a sensation that the blood is draining out of the body, and a fuzzy feeling in the head. Fainting spells may occur. In fact, fainting spells during the course of phenothiazine or any other psychotropic drug should alert the physician to the possibility of orthostatic hypotension. Dryness of the mouth is a minor but common complaint.

Ophthalmic disorders are due largely to a disturbance of the sympathetic innervation of the eye, characterized by blurred vision, diplopia, or both.⁵

The well-known antiemetic effect of the phenothiazines⁶ has been valuable and widely used. This effect may, however, mask a more serious underlying abdominal complication.

Convulsive seizures have been noted upon sudden withdrawal of these drugs. Therefore, it is well to keep in mind that, if high doses are used, the dose should be reduced gradually before complete withdrawal. This caution applies not only to the phenothiazines, but also to other psychotropic drugs.

Lactation has been observed. This is a minor symptom that can be distressing to patients when they are not aware of the possibility⁷ (Fig. 2).

Hepatic involvement occurs, but fortunately is an infrequent complication of these drugs. If upon

Read at the John F. Kenney Day Clinic, Pawtucket Memorial Hospital, Pawtucket, R.I., November 9, 1966.

Hepatic Signs

- Jaundice — U.R.Q. Tenderness
- Blood Dyscrasias
- Agranulocytosis — Aplastic Anemia — Purpura
- Photosensitivity & Dermatitis
- Pigmentation of Skin
- Various Types of Rashes
- Allergic Responses
- Rise of temp. Urticarial Rashes
- Bronchial Spasm
- Potentiate CNS Depressants — Barbiturates

Fig. 2.

appearance of jaundice the drug is not discontinued, serious hepatic disease may ensue. In the few patients we have seen having liver involvement it has been reversed quickly upon cessation of the drug.

Blood dyscrasias, such as agranulocytosis and aplastic anemia,⁸ are alarming signs. We have had two deaths due to agranulocytosis in patients who had a concurrent infection following the prolonged use of a phenothiazine. Having moved from the area, they had been lost to careful follow-up, and periodic white blood counts had not been done.

Photosensitivity⁹ and dermatitis have been caused by the phenothiazines. Therefore, patients are warned not to spend long hours in the sun when they are under phenothiazine therapy. Variable regional pigmentation^{10 11} and rashes have been attributable to the phenothiazines, as well as to other psychotropic medications. These changes are reversible upon withdrawal of the drugs.

The possible potentiation of phenothiazines by barbiturates should be remembered. In this situation, they act as hypnotics and sedatives. There is great danger in patients driving, or working at hazardous jobs during such treatment. Therefore, barbiturates should be given with caution and with full knowledge of the potentiating effects of the phenothiazines.

We have also noted that phenothiazines may precipitate a depressed reaction in some patients or may accentuate a depression which is already in progress. Therefore, it is not wise to administer the phenothiazines to depressed patients for extended periods. There are other psychotropic drugs which are of more value for the depressed patient.

MINOR TRANQUILIZERS

The minor tranquilizers, meprobamate (Equanil,[®] Miltown[®]), chlordiazepoxide (Librium[®]), and diazepam (Valium[®]), are excellent in the treatment of anxieties, phobias, and other psychoneurotic symptoms. They have also been found to produce various secondary symptoms such as the phenothiazines may produce (Fig. 3), but not as marked.¹² Among the more troublesome is orthostatic hypotension. Often the systolic blood pressure remains

much below 100; if the blood pressure cannot be raised to a more satisfactory level, the drug must be discontinued. Withdrawal symptoms from these medications when used over a long period of time are sometimes distressing; convulsions, restlessness, and anxiety are typical.¹³

As with all psychotropic drugs there may be a rise or fall in body temperature when they are first given to susceptible patients. Although a minor reaction, it is frequently a cause for some anxiety to the physician.

SIDE EFFECTS OF ANTIDEPRESSANTS

- Drowsiness
- Dizziness
- Precipitate hypo-manic state
- Precipitate latent schizophrenia
- Insomnia
- Orthostatic hypotension

CAUTION — Because the effect of drugs are not realized for 7-10 days, danger of suicide is high.

Tranquilizers are of great value in the treatment of nervous diseases, and their side effects are minor compared with the relief that many hundreds of thousands of patients receive from their use. Yet we must be on our guard for these onward symptoms which are produced in some individuals, even though they are not severe or numerous. They are usually reversible by discontinuing the medication, by reducing the dosage, or by changing to a different type of tranquilizer.

Depressions are a common and frequent affliction of our modern age. While they occur most frequently in the involutional period, they are found in both young and old. They may accompany other disease or be a separate entity.

Treatment of the depressions was largely unsatisfactory until the late nineteen thirties and early forties when the amphetamines were introduced. The amphetamines were not used for the treatment of depressions in the beginning but for other medical conditions. They were found to elevate the mood of the patient under treatment. Certain objectionable side effects, especially their habit-forming qualities, frequent overstimulation in some patients, and weight loss were noted.

MONOAMINE OXIDASE INHIBITORS

In the fifties, great impetus was added to our psychopharmaceutical armamentarium when it was discovered that iproniazid (Marsilid[®]), used in the treatment of tuberculosis, appeared to produce euphoria in many patients. Iproniazid was found to inhibit monoamine oxidase¹⁴ (MAO). It appeared that it produced its effect by blocking this enzyme system, thus elevating the mood of a patient, influencing favorably the course of his depression, and shortening its duration. However,

(Continued on next page)

since this drug was very toxic, it was discontinued as an anti-depressant.

Because of this experience, several new related drugs were introduced and others rapidly followed. We now have a large group of drugs effective in the treatment of depressions. Several have been used to advantage in combinations with tranquilizers.

Since these drugs act slowly, taking from a week to ten days to reach their maximum effectiveness, it should be kept in mind that self-destruction is not uncommon in this critical period of treatment. Electric shock treatment is still the treatment of choice in acute depressions, greatly reducing the risk of self-destruction. Anti-depressant drugs can be given together with the electric shock therapy and for some time after the treatments are over.¹⁵

One must keep in mind that these drugs may precipitate several important side reactions in the depressed patient (Fig. 4). We have found that drowsiness and dizziness are quite common, but may diminish if the dosage is reduced until some tolerance is gained. The MAO inhibitors should be given alone and not in combination with other anti-depressants such as Eutonyl,[®] as undesirable reactions may result. Patients should abstain from eating cheese (aged yellow) or foods produced by fermenting process. Orthostatic hypotension may be caused by these drugs as well as by the tranquilizers.¹⁶

SIDE EFFECTS OF MINOR TRANQUILIZERS

Orthostatic hypotension
Withdrawal symptoms
Restlessness
Anxiety
Temperature rise
Rashes
Drowsiness
Precipitate depression

Any anti-depressant may precipitate or over stimulate the patient into a hypomanic state, or even precipitate a latent schizophrenic reaction. Prolonged use of an anti-depressant drug can disturb color perception, which could become a hazard to a patient who drives a motor vehicle. This color disturbance is evidence of an optic nerve change. Other side effects are insomnia, anorexia, nausea, palpitation, headache, and skin rashes.

The new psychic energizers have been a boon to the psychiatrist in treating depressions. When used wisely, with the known side effects kept in mind, they can be continued for long periods of time, thus reducing the chances of a recurrent depression or suicide.

The wedding of anti-depressant drugs and tranquilizers has recently become popular and useful. The combination is valuable in depressions asso-

ciated with agitation, delusions, suspiciousness, or other symptoms.

OTHER USEFUL DRUGS

The non-barbiturate sedatives have been very effective as substitutes for the barbiturates. They can, however, produce habituation if not carefully prescribed and given under close supervision. Allergic rashes have been reported. These agents have proved to be lethal in self-destruction attempts.

Steroids have been administered to psychiatric patients, but usually in the management of incidental conditions such as inflammatory processes, acute herpes zoster, or meningitis. Occasionally they are used to speed up the metabolism during a depressed of hypotensive state. Abrupt withdrawal of steroids may cause a hypoadrenal state with delayed healing and increased clotting time. Steroids, when used for extended periods, may produce peptic ulcers and may precipitate or aggravate diabetes. The typical moon face will be produced by overdosage or prolonged use of steroids.

Any drug given during pregnancy may be harmful to the fetus,¹⁷ especially during the first trimester and more particularly during the first six weeks. It is unwise to use any psychotropic drugs during this period unless to spare the life of the mother. The well-known congenital defects produced by thalidamide should keep the thoughtful doctor alert to the possibility of serious consequences. Any unusual side reactions should be reported to the pharmaceutical companies to help in establishing a causal relationship between the drug and the reaction. Only a small percentage of all adverse drug reactions pose a threat of death or serious disability.

CONCLUSIONS

The psychogenic drugs have added a great stimulus and interest to psychiatry and have given many patients a new lease on life. Many conditions have been rendered more tolerable, if not completely relieved.

Physicians should familiarize themselves thoroughly with the use of these drugs, their indications, side effects, and possible adverse reactions.

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- (Concluded on Page 115)

SOUND PRINCIPLES FOR PREPAID MEDICAL CARE*

Providing of Quality Medical Care Cannot Be Dissociated From Fair and Reasonable Payments for Service

STANLEY D. SIMON, D.D.

The Author, *Stanley D. Simon, M.D., President, Providence Medical Association, 1966.*

This is indeed a time of transition and great change. I am reminded of the scene in Mark Connelly's "Green Pastures" when Gabriel looked down from heaven over all the confusion on earth and said, "All that isn't nailed down is coming loose."

The impact of federal Public Law 89-97 is just beginning to be felt and it is much too early to evaluate any data available. Title 18 has been in effect since July 1, 1966 and my impression is that it is being handled reasonably well with the expected pains of a difficult labor. I believe that by polling the Rhode Island Medical Society membership and establishing a range of usual, customary and prevailing fees in Rhode Island, the carrier (Rhode Island Medical Society Physicians Service) has been able to process Medicare claims reasonably quickly and fairly. The Claims Committee of Physicians Service in reviewing unusual charges has not been overwhelmed, and this is a tribute to the Rhode Island doctor and our preparatory efforts.

There was great concern prior to the enactment and processing of Title 18-B that existing Physicians Service (Blue Shield) service policies would be used as a basis of "usual, customary and reasonable charges" by the carrier. The reason for the concern was that many service plans, including ours, had fee schedules which were outdated, and which placed the physician in a severe squeeze secondary to inflationary trends and increasing taxes. There was a thrust originally by the people at the government administration level to make this concept based on the outdated fee schedules one that would prevail. This was argued rationally and reasonably. It was defeated, and there is no longer any attempt on the part of the Social Security Administration to force this view upon the carriers. To quote Robert M. Ball of the Social Security Administration, "the provisions of the law which call for payment of reasonable cost to physicians, diagnostic laboratories and medical suppliers are designed accomplish full reimbursement and fair payment for health services. We are not looking for quality care at

'bargain basement' prices or at rates subsidized by others."

Medicaid (Title 19 of P.L. 89-97) was enacted at the same time with very little fanfare. It was left for the states to define "medical indigent." California, Oklahoma and Minnesota have already enacted laws and implementing Title 19, and payments of usual and customary charges are being made to physicians in these states. New York has passed a Medicaid Act which establishes income limits for eligibility as high as \$7,700 for a family of six with one wage earner, and for each additional member in the family the income limit increases by \$850.00. A family of four with one wage earner, which is the size of a family usually used as a standard, is eligible for Medicaid benefits if its annual *net* income does not exceed \$6,000. One important feature is that net income under the New York Medicaid law is defined as gross income less income taxes, health insurance premiums, and payments pursuant to a court order. There are also other exemptions which increase the eligibility rolls. It is estimated by the Board of Social Welfare of New York that between six and eight million people would be qualified, representing 40 to 50 per cent of the population of that state. The benefits offered by the program are exceedingly broad and even include transportation necessary to obtain the care and services provided by the law. But what about our own state of Rhode Island? The story was well presented at the R.I. House of Delegates meeting December 8, 1966 by your president, Dr. Harry Darrah. He presented the negotiations that had been carried on by members of the R.I. Medical Society Committee on Social Welfare with Mr. Augustine Riccio, Director of the Department of Social Welfare, and his department aides. A schedule of fees for in-hospital, home, office, nursing home, and many other physician services was drafted. A marked improvement in the schedule of fees for physicians was noted compared to those fees previously paid by the department for medical aid to the aged patients under the federal Kerr-Mills legislation — but *not* the usual, customary, and prevailing charges of Rhode Island physicians for these services that are currently being paid under the federal Medicare Act (18-B). Obstetrical services, which had been on an indemnity basis under the Physicians Service contract, were made a service

(Continued on next page)

*Presidential Address delivered before the Providence Medical Association, at Providence, R.I., January 9, 1967, on the occasion of its 120th Annual Meeting.

benefit with payment of \$175.00 to include pre-natal office visits and delivery by the attending obstetrician. For those cases first seen by the attending obstetrician at the time of delivery and for whom the delivery service is provided, plus all post-partum visits, \$125.00 will be allowed. However, as regards the surgeon, assistant surgeon and anesthetist, it was stated by the Department of Social Welfare: "We regret that it has not been possible to satisfactorily conclude negotiations for the acceptance of this fee schedule by the R.I. Medical Society. It appears that the principal continuing problem relates to our department position that we are unable to move beyond reimbursement rates for the services of surgeons, assistant surgeons and anesthetists which presently prevail in the Rhode Island Physicians Service fee schedule for individuals in the community with similar income levels — namely, those covered by the Rhode Island Physicians Service PSI (Professional Services Index of National Blue Shield) Plan A. The practicing physicians and surgeons of Rhode Island should know that we have repeatedly indicated our readiness to reconsider our position when, and if, the fee schedule of the Rhode Island Physicians Service PSI Plan A is revised or, in fact, ceases to exist. We note that while this Plan A is no longer being offered to new subscribers, a significant number of our Rhode Island population (in excess of 200,000) still continue to qualify for benefits under this plan. We do not feel, as a department responsible for not more than 10 per cent of the total population which would qualify for medical assistance through provisions of Title 19, that we can take a lead in establishing a surgical fee schedule which would significantly influence the remaining 90 per cent of the population not included within the scope of the Rhode Island Medical Assistance Program."

First I must comment on the statement that over 200,000 qualified for benefits under Plan A. As of October 1966, Physicians Service has paid service benefits to 24.2 per cent of approximately 200,000 Plan A subscribers. It has paid service benefits to 56.6 per cent of Plan B subscribers. No attempt has ever been made to establish true income limits by Physicians Service, and the patient's simple statement of his income limit on the Physicians Service form has been accepted by most physicians without question. However, with minimum wage laws in effect and with consideration of the number of students in this plan, I would personally estimate that well below 10 per cent are truly entitled to service benefits under this long-outdated fee schedule.

In plain language, the State Department of Social Welfare is asking for bargain basement prices for the same medical services that the Federal

Government is stating should be paid for at usual, customary and prevailing levels. What is my message? As was done at the national level in negotiations with the Federal Social Security Administration, we must persuade our State Administration that Rhode Island physicians are anxious to be of service; but we must also convince them of the validity of the expressed views of the Federal Social Security Administration to the effect that "the Federal Government will encourage all states to pay doctors the same fees under Title 19 that they receive under Medicare." We have asked the State Social Welfare Department to sit with us again and continue the dialogue preferably with a representative of the Federal Government present. It must be noted that the Federal Government pays over 50 per cent of the State Welfare Program. It is also of significance that hospital reimbursement rates under Title 19 of Public Law 89-97 shall be those resulting from the application of the Principles of Reimbursement for Provider Costs, as established by the U.S. Department of Health, Education and Welfare, Social Security Administration in its publication HIM-5 relating to Title 18 of the Social Security Act as amended (Public Law 89-97). This principle was put into effect July 1, 1966 and assures the payment to hospitals at reasonable rates for quality care. No attempt was made to ask for reduced payments to the suppliers of hospital care for either Title 18 or Title 19 patients.

What else is "coming loose" as the result of implementation of Title 18-B? Surely when people under 65 years of age become fully aware of the benefits available to those over 65 under Part B at a cost of \$3.00 per month, there will undoubtedly be a demand for extending coverage to lower age groups.

The larger purchasers of pre-paid medical care — namely, the steel, auto and telephone industries, are keenly aware of the impact of Medicare. Negotiations have already been completed, and national contracts will go into effect in 1967, with full reimbursement of doctors' charges for presently covered services, plus pre- and postnatal care and in-hospital care on a prevailing fee basis. A resolution adopted at the Steelworkers convention in 1966 stated, "this is a new approach in our continuing quest to prepay medical care cost. The doctors who have supported the fee for service system of medicine have long asserted that if our programs provided payments based on prevailing fees, complete prepayment of medical care charges was possible. Doctors will now be paid their prevailing fees and they therefore have a heavy responsibility to assure that the new program operates successfully."

It has been apparent to many that the Federal Government is now the pace setter in the field of

health insurance, and that the concepts of fixed fee schedules for certain income groups have also been shaken loose and are no longer dependable in a rapidly inflating economy. We have already accepted the challenge of Federal Medicare, and in the same manner should prepare for the establishment of a prevailing fee method of payment whether it be for the State Welfare Program, Physicians Service contracts, health insurance under commercial carriers, medical care coverage for military dependents or government employees, or any other category of prepaid medical care. This will require the same type of procedure and claim review system that we presently provide for Federal Medicare.

Thus it should be eminently clear to every physician that his is a major role in making these new and expanded programs workable in the best interests of the patient whom he serves. Every physician must accept the responsibility to be fully informed on all phases of the program, and must be prepared to defend the position of organized Medicine that the providing of quality care is closely associated with fair and reasonable fees. He must be willing to give generously of his time and energies to serve the Profession and the Public in order to make certain that the high goals we seek may be realized.

ARS GRATIA ARTIS

One of the earliest and still most articulate examinations of the qualities that constitute the true profession of medicine is found in a Socratic dialogue in Plato's *The Republic*. Thrasymachus is inquiring into reason's why it is that men work. He has just decided that all men, including the ruler in even the ideal state, would be motivated only by self-interest in the power that would accrue to the person in the profession and in the living he would make. Socrates stops him short:

"Enough of this banter. . . . Tell me this: Is the physician of whom you spoke as being strictly a physician, a maker of money, or a healer of the sick? Take care you speak of the *genuine* physician."

"A healer of the sick," replied Thrasymachus.

But, Socrates now asks, aren't you neglecting the fact that each of the individuals who practices medicine has a primary interest in making a living . . . ?

"Has not each of these persons an interest of his own?"

"Certainly."

"And is it not the proper end of their art to seek and procure what is for the interest of each of them?"

"It is."

...from *ON THE PROFESSION OF MEDI-*

MEDICAL EDUCATION IN A COMMUNITY HOSPITAL

(Concluded from Page 105)

a good residency training program, they need to pay attention to the personal needs, as well as the educational requirements of the house staff. Provision of adequate housing, reasonable salary, insurance coverage, and most of all, warm personal relations and genuine friendly interest are important ingredients, and will be rewarded by a co-operative spirit that is reflected in the smooth running of the hospital machinery and good care of the patients. An intern-resident training program is a large financial investment, but, when well run, has more influence in the promotion of good medicine in a hospital than Tissue Committees, Medical Audits, expensive equipment, bricks and mortar, or any other single feature. It is a valuable plant that needs constant nurturing by someone with a "green thumb."

The community hospital is becoming an increasingly important cog in the medical education of the future. It needs assistance and leadership from the university teaching centers. In return, it must live up to the responsibilities and standards that such an association demands.

DISORDERS ASSOCIATED WITH NEWER PSYCHOTHERAPEUTIC DRUGS

(Concluded from Page 112)

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CINE, Prize Winning Norman A. Welch, M.D., Medical Ethics Essay, June 1966, by Glenn W. Geelhoed, University of Michigan Medical School

CESAREANS GALORE

(Concluded from Page 108)

You will recall that Sanger's contribution was not that he performed and reported a successful Cesarean section, but that he advocated the innovation of closing the uterine incision with sutures. In this contention he used Harris' writings and statistics to prove that such was not only necessary, but that the more sutures used, the better were the results in preventing leakage.

In a study of section scars many years ago Greenhill⁴ wrote: "We feel that closure with interrupted sutures will yield better scars than closure with continuous suture." It is not a good argument that a slight gain in speed at this point outweighs the slightly longer time needed for the interrupted closure. The duration of operating time in the sections reported in this series ranged between 31 and 45 minutes, and averaged 38 minutes from skin incision to the final intradermal skin stitch.

The section baby has two strikes against him, even if we leave out of consideration those delivered for emergency conditions. The danger of prematurity has been mentioned. He may be depressed from inhalation anaesthesia, if that is used, or from postural hypotension of the mother. Promptness in starting the operation as soon as the patient is anaesthetized helps avoid this. None of the babies in this series was premature or depressed at birth.

A section baby is deprived of one very important advantage which is the birthright of the normally born infant. This is usually overlooked by the operator. The chest of a baby born through the birth canal is effectively compressed during labor and delivery, and the amniotic fluid, in which the fetus has been living and which up to birth has been the normal content of at least the larger branches of the air passages, is by the compression adequately forced out. Unless the operator substitutes for this maternal squeeze his own gentle manual compression of the baby's chest, and next either aspirates the remaining contents of the pharynx or passes the baby over face down so that gravity can do this for him instead of in the usual sunny-side-up posture, the first gasp of the section baby will suck this liquid into the expanding lungs. I recall hearing Dr. Thaddeus Montgomery hold forth eloquently on this and other deprivations suffered by the section baby.

Furthermore, these babies risk blood loss if the placental circulation is injured in opening the uterus. Often the frantic haste shown by a zealous assistant in clamping and cutting the cord robs the baby of part of its share of the blood in the placenta. I used to strip the cord before cutting it,

and on several occasions even passed over the intact cord and placenta with the baby to let the blood be drained as an infusion flask.

Fortunately, in none of this patient's pregnancies was the placenta implanted low on the anterior wall or involved in opening the uterus. This uterus, which had been incised and closed so many times, must have had areas of defective endometrium over the scars. Such a scarred area cannot normally contract and so function as a muscular ligature in closing the large vessels after placental separation if implantation is over the scar. Some of my gray hairs are due to such an instance. For this reason some will say, "Once a section, always a section," but the rarity of this does not prove the point. Many of our patients have been delivered normally following sections done for indications other than dystocia from disproportion. We are not "section happy."

This case history has not been reported to demonstrate endurance or bravado by either the patient or her obstetrician. It may be found useful in reassuring some timorous patients facing repeat sections. It does recapitulate in her 18 year obstetrical history the development of the operation to date.

That the operation is not without risk is shown by the suggestion of the American College of Obstetricians and Gynecologists that consultation no longer be required to permit sterilization at the time of the third section, tacitly implying thereby that three Cesareans is all a woman should be required to undergo.

CONCLUSION

This courageous young woman proved one thing beyond all doubt. Even though a woman who has had a Cesarean section is regarded as an obstetrical cripple, she may with confidence, and with luck, enter the Marathon.

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DERMAQUIZ ANSWER

(See Page 93)

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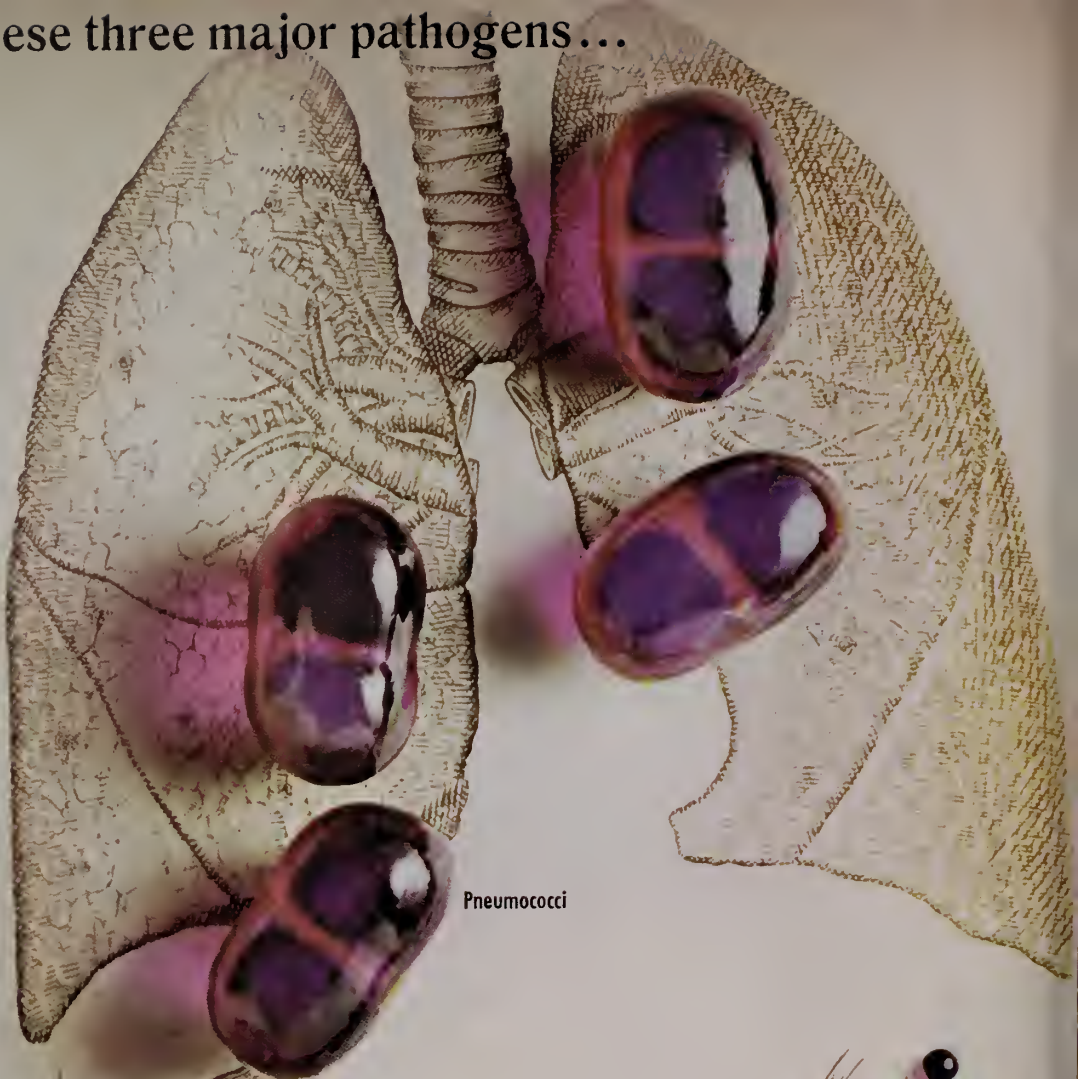
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WARNING: Use only after careful evaluation in patients with liver or renal damage, urinary obstruction, or blood dyscrasias. Deaths have been reported from hypersensitivity reactions with administration of sulfonamides. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed periodically. Sulfonamide therapy may potentiate the hypoglycemic action of sulfonylureas. **PRECAUTIONS:** Use with caution in patients with histories of significant allergy or asthma. Assure an adequate fluid intake. Because the antihistamines may cause drowsiness of varying degree, warn patients about activities requiring alertness such as driving a car or operating dangerous machinery. Use with caution in the presence of hypertension, hyperthyroidism, cardiovascular disease and diabetes. **ADVERSE REACTIONS:** As in all sulfonamide therapy, the following reactions may occur: headache, nausea, vomiting, diarrhea, icterus, hepatitis, pancreatitis, urticaria, rash, fever, cyanosis, hematuria, crystalluria, proteinuria, blood dyscrasias, petechiae, purpura, neuropathy and injection of the conjunctiva and sclera. If

one or more of these reactions occur, the drug should be discontinued. With antihistaminic therapy there have been reports of sedation varying from mild drowsiness to deep sleep, dizziness, lassitude, inability to concentrate, fatigue, incoordination, tinnitus, blurred vision, diplopia, euphoria, nervousness, insomnia, tremors, palpitation, hypotension, headache, chest tightness, urinary frequency, dysuria, tingling of the hands, dryness of the mouth, throat, and nose, gastrointestinal disturbances such as epigastric distress, anorexia, nausea, vomiting, constipation and diarrhea and very rarely, leukopenia and agranulocytosis. Adverse reactions reported with the use of sympathomimetic amines include anxiety, tension, restlessness, nervousness, tremor, weakness, insomnia, headache, palpitation, tachycardia, angina, elevation of blood pressure, sweating, mydriasis, anorexia, nausea, vomiting, dizziness, constipation, and dysuria due to vesicle sphincter spasm. **PACKAGE INFORMATION:** Trisulfaminic Tablets: Supplied in bottles of 100 tablets. **CAUTION:** Federal law prohibits dispensing without prescription.

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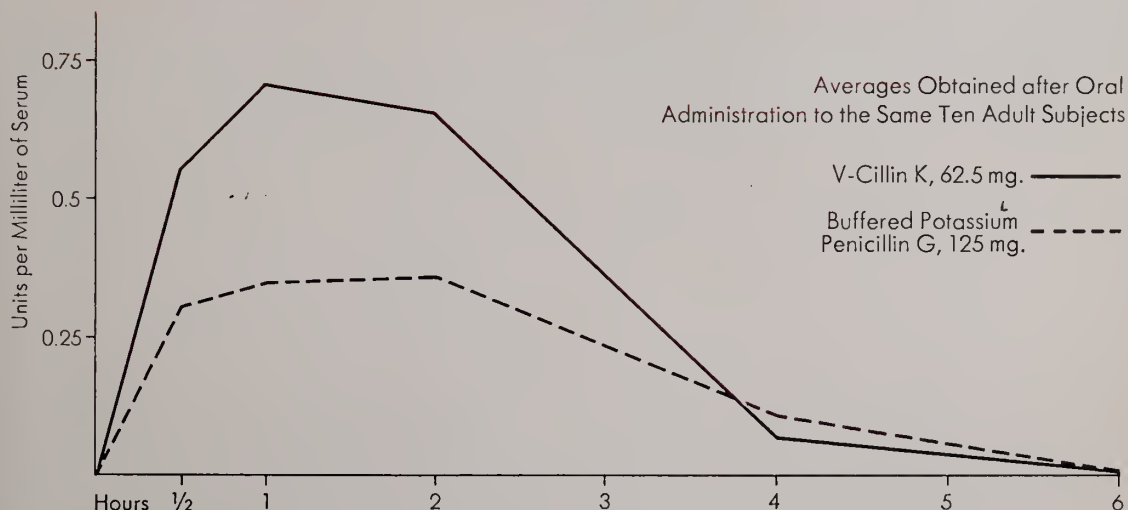
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Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adopted from Griffith, R. S., and Block, H. R.: Current Ther. Res., 6 253, 1964.

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Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in

those who have previously demonstrated sensitivity to penicillin. If severe hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, skin rash, symptoms resembling those of serum sickness, and other manifestations of penicillin allergy may occur. When penicillin is administered, measures for treating anaphylaxis should be readily available. Those include epinephrine, oxygen, and pressor drugs. Relief of immediate allergic manifestations as well as antihistamines and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the development of growth of antibiotic-resistant organisms; in such a case, antibiotic administration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. For routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderate severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Patients with a suspected lesion of the eye should have a dark-field examination before receiving penicillin. Monthly serologic tests for a minimum of three months.

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PROGRAM AT BROWN UNIVERSITY

Published elsewhere in this issue are addresses by two distinguished physicians (Doctors F. A. Simeone and Lowell T. Coggeshall) delineating the role of the new Program in Bio-medical Sciences at Brown University in the context of the times. Both authorities see a unique opportunity to adopt a curriculum, not yet established in a set or traditional mold, to changing needs.

While these columns have in the past cautioned against too radical a departure from tried and tested methods of medical education, we see now developing a program which is a wise blend of the conventional and the new. While laying heavy stress upon the basic sciences, strong clinical affiliations are emerging. We shall watch these exciting developments with interest.

DUAL PRICING — HOSPITALS AND DOCTORS

The hospitals of Akron, Ohio, recently became embattled with the regional Blue Cross plan over a dual pricing policy which resulted in payments at less than regular charges for Blue Cross subscribers. Sister M. Brigid, C.S.A., Executive Director of Saint Thomas Hospital of that city, has expressed well the position of the hospitals, not only of Akron, but of all communities:

"Blue Cross subscribers are not the only ones for whom a hospital receives less than billed charges. This also applies to patients of government and welfare, workmen's compensation and the bureau of motor vehicles. Hospitals have traditionally been considered to be charitable institutions. This word charity has become perverted to the point where hospitals have been receiving less than billed charges at the expense of the paying and insured patients who are assuming the difference between billed charges and the reimbursement made by these various agencies. There, it is the paying patients' charity — not the hospital's charity. If vendors

are paid, again it is the vendor's charity — not the hospital's.

"The hospitals no longer render charity to the patient, but to Blue Cross and to other agencies, by accepting less than billed charges. May I remind you that the U.S. Government, welfare and Blue Cross are not indigent.

"Do the government, welfare and Blue Cross patients pay less by discount to the grocery store, the landlord, taxicab companies and the gas stations, when their clientele purchase these commodities and services? They do not!

"Is there any just reason why hospitals then must suffer this discount? No!"

More power to Sister M. Brigid! It is about time, we feel, that clear thinking of this sort be applied to physicians' payments as well, particularly as concerns payments for welfare patients. We commend this approach to the welfare officials of our fair State and urge them to review their out-moded philosophy.

SOUND PROPOSALS FOR SELECTIVE SERVICE

A special 20-member White House National Advisory Commission on Selective Service has indicated the nature of the recommendations to be incorporated in its final report due early in February of 1967. In the first place it will propose continuation of the selective service with no major changes. It will advise against adoption of universal military training. UMT would require induction of three times the number of eligible young men needed to maintain the Armed Forces at their present level — presumably adequate for foreseeable

needs even with continued build-up in Vietnam. Since only one man in three will be called, some technique of random selection will be suggested. The pool will contain all of those for whom there are no reasonable grounds for exemption.

Because of the prevalent criticism of college student deferment and the frequent claim that it discriminates against the poor, the Commission devoted much thought to this thorny problem. It has produced evidence that in fact proportionately more

(Continued on next page)

former college students end up in service than non-students, largely because of the needs of the military services for officers. It is recommended, however, that a large loophole in present selective service procedure be closed. Deferred students may now graduate from the pool by remaining in school until they have passed age 26, thus assuring virtual immunity from the draft. The Commission is expected to recommend extension of vulnerability for the deferred beyond age 26 to compensate for student deferment. Although now technically liable for the draft until age 35, very few individuals other than medical specialists have been drafted when deferred beyond age 26. This has been an inequity all too evident to the medical profession which nevertheless has steadfastly supported the medical draft.

In a previous editorial on this subject (December 1966) we stated: "We do believe . . . that those students who have been deferred to complete

their medical studies and hospital training should not be allowed to slip by because of age, marital status, or the acquisition of a family. Having been deferred they should have a fixed obligation. . . . Educational deferment seems very desirable in some fields. It is inevitable if the Armed Forces are to have enough physicians for their needs." This principle, of course, applies to other educational deferments as well.

We support a fair selective service program with equal risk for all, an educational deferment policy unmarred by stigma of favoritism, and a doctor draft equitably administered. This implies equal liability for all — young physicians, other potential officers, and candidates for the enlisted rank and file. We strongly advocate adoption of the new recommendations which appear to adhere closely to those concepts we have previously outlined.

MEDICAL ETHICS AND HISTORY

In the spring of this year the compendious diaries of Lord Moran were published under the title of "Churchill: The Struggle for Survival—1940-1965." These diaries comprise the eminent British physician's recordings of the varying states of health, the opinions, and the misgivings, the personal and the political relationships of his distinguished patient during the most critical period of recent World history. The merit of this hiatus-punctuated, yet overly detailed, journal as biography *per se* is not here considered.

The interest of the general public and the concern of the medical profession was aroused not so much by the frank disclosures of political and military events during World War II and its aftermath (much of which had already been published by several of the principals, including Churchill), but by the accusation that Lord Moran had breached the traditional sanctity of professional confidence between physician and patient.

Lord Moran has been roundly condemned by sections of the British medical and lay press, by irate members of the Churchill household, including his son Randolph who has an "official" biography in the making, and in a resolution of the British Medical Association. The basis for the adverse criticisms, particularly by his medical colleagues, stems from his apparent violation of, in the phraseology of the Hippocratic Oath, the obligation to maintain silence on "whatsoever things I see or hear concerning the life of men in my attendance on the sick, *which ought not to be noised abroad.*"

Most of the professional book reviewers, on the other hand, have supported the disclosures because as phrased by the venerable London Times "about this (publication of the memoirs) there can be no

doubt. In generations to come, in many lands, men and women will want to know what kind of man Churchill was."

Pertinax of the British Medical Journal pointed out that "accuracy in the relating of history is the first need . . . Lord Moran . . . was more than Churchill's physician, he was Churchill's Boswell."

Now that sufficient time has elapsed for the dust following the original impact of publication to subside, perhaps the following considerations will prevail.

This is obviously no ordinary case of a physician tattling titillating disclosures of the secret life of a national hero. It has no analogy, for example, to the spectacle a few years back, when an Italian doctor detailed the deathbed agonies of a Pope for profitable publication in sensational newspaper articles, for which he properly received the official censure of his profession.

Churchill the statesman cannot be separated from Churchill the patient. His illness, physical and mental, real and imaginary, influenced his decisions and his actions, and many of these molded the matrix of history. No one other than his physician could have authoritatively supplied this intimate information, not only for the professional historian, but to the literate public.

In recent years there has been a spate of biographies by close confidants of notable political figures in which personal matters, suppressed during their lives, have been disclosed. These writers, who have certainly breached confidences, have not aroused the type of criticism to which Lord Moran has been subjected. Should not a physician also have the privilege of presenting, as Lord Moran has done, factual medical information on a deceased public

figure, to which he alone may have been privy? Contemporary precedents abound. Each of the recent Presidents has had his illnesses and operations detailed by his physicians to the press or more directly, as when the incumbent personally demonstrated his surgical incision. Certainly there are precarious situations, when in the national interest some information on the health of a President, or a Prime Minister, may have to be withheld, but this hardly applies to one already some time dead.

What then of the moral interdiction as expressed

in the Hippocratic Oath? Please note the portion in italics. The framers of this ancient but still relevant medical code included this qualifying statement "which ought not to be noised abroad" to indicate that the physician could exercise discretion. The silence, unlike that of the confessional, need not be absolute.

"There is properly no history, only biography" wrote Emerson. If so, Lord Moran has performed an obligation by fleshing out the structure of a man who was "of the stuff of history."

HOSPITAL COSTS

We have in the past commented in these columns upon the likelihood that hospital costs will continue to rise despite public hue and cry inspired by a misunderstanding of hospital economics. Organized labor in California proposes regulating hospital charges by putting hospitals under public utility controls. This is a little ridiculous since, by and large, hospitals are non-profit corporations, while public utilities are publicly held profit-making stock corporations.

The following is a good exposition of the mechanism of rising costs in hospitals:

"Some service trades, like the vanishing domestic servant, will be all but priced out of the market by the remorseless pressures arising from their technological rigidity. Others, like fine restaurants, will be decimated in number and may eventually be-

come the stately homes whose servicing grows ever more difficult, will survive only as museum pieces. Not all services face such a discouraging future, however.

"Some, such as education, will manage to expand their obligations because society considers them sufficiently indispensable to pay the bill, whatever its magnitude. . . .

"Human ingenuity has devised ways to reduce the labor necessary to produce an automobile, but no one has yet succeeded in decreasing the human effort expended at a live performance of a 45-minute Schubert quartet."

This quotation, if the reader has not guessed, is taken from a book titled "Performing Arts: Economic Dilemma" by William J. Baumol and William G. Bowen, economics professors at Princeton — which suggests that we are not alone.

THE PREVENTION OF WAR

While a discussion of the prevention of war may seem out of place in a medical journal, it is perhaps time that this cause no longer be left solely to the politicians, foreign relations experts, and military theorists. Preventive Medicine has in recent years extended its sphere beyond merely the control of bacterial and viral infections to a much broader field including such varied problems as heart disease, cancer, diabetes, alcoholism, cerebral palsy, mental retardation, industrial accidents, and highway deaths. Certainly prevention of war, perhaps the worst of human scourges, should not be outside the interests of scientists (including physicians) and scholars. Recent studies indicate that there may be hope in newly developing concepts.

Anthropological studies indicate that man's irascibility may be due an inherited strain of combativeness. Robert Ardrey, author of the best-selling "The Territorial Imperative," and a knowledgeable student of anthropology, states: "Man . . . is a territorial animal. We act as we do for reasons of our evolutionary past, not of our cultural present, and our behavior is as much a mark of our species

as is the shape of a human thigh bone. If we defend our land or the sovereignty of our country, we do it for reasons no different than do lower animals. The dog barking at a stranger from behind his master's fence acts from a motive indistinguishable from that of his master when the fence was built."

These views are somewhat supported and amplified by the concepts of Geoffrey Gorer, noted British anthropologist, who writes: "One of the most persistent and widespread beliefs about 'human nature' held by men of good-will in most of the advanced societies in the world is that human beings are 'naturally' peaceful and gentle, considerate of their fellow human beings and unwilling to hurt or kill them, save under the (assumedly) exceptional conditions of war. This belief in the essential gentleness of 'human nature' can only be maintained by a wilful blindness that refuses to recognize the evidence which history, social anthropology, the daily newspapers, and television so constantly provide of man's willingness to hurt and kill his fellows and to take pride and pleasure in so doing."

(Continued on next page)

While man has no killer instinct, Gorer believes that he lacks positive inhibitions against killing his own kind. In this respect he is like the rat, but unlike the wolf and other species having a positive, genetically transmitted inhibitory instinct. The intrusion of a strange rat into a peaceful pack will lead to an instinctive resentment and eventual destruction of the intruder. Thus Gorer describes a force analogous to Ardrey's territorial imperative.

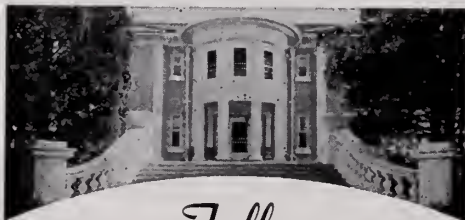
Man has enlarged his family progressively through various clan, tribal, and territorial arrangements to the nation-state, which Gorer describes as "really the last successful invention for extending the size of the pack, within which killing is murder." It is interesting in this connection to observe recent political attempts to arouse for constructive purposes a sense of nationhood in such politically primitive areas as South Vietnam and the Congo, where family and clan or tribe are still the prevailing focus of loyalty.

Barbara Ward, the brilliant British economist, in her scholarly *George B. Pegram Lectures* before the Brookhaven National Laboratory (published in monograph form as "Spaceship Earth"), has carried these concepts somewhat further. Our world, she indicates, has become so small now that it is but a spaceship in the infinity of the cosmos. "In

our world today," she states, "all the irresistible forces of technological and scientific change are creating a single vulnerable human community." Perhaps the One World concept of Wendell Wilkie is the answer to the territorial imperative. Miss Ward eloquently inquires:

"Is it . . . too audacious to hope that if, in the next decades, most of man can be set, by way of new technologies, on the path of growth, then human conquest — which used to be for slaves and land and treasure — may now become the conquest of things of the mind, of the inventions which flow from science, of the 'inner space' of human imagination and capacity? Nor need we exclude the high adventure of 'outer space.' Just possibly, the age of bloody physical conquest which has lasted for a hundred thousand years — from the tribe to the empire — may now be reaching its term. If the triumphs and contests of abundance take the place of the old grinding enmities of scarcity, then, perhaps, we shall not destroy ourselves. We shall not find it entirely irrational to live in hope."

We would like to believe that medicine — with our sister disciplines of political science, social science, history, and anthropology — will play an important role in this hopeful future.



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*Masters In Medicine . . .*FROM BOERHAAVE TO JOHN MORGAN:
TWO BOOK REVIEWS*American Medical Education Traces Its Origins to John Morgan of Philadelphia, and Through Him to Edinburgh, Boerhaave of Leyden, Ultimately to Hippocrates*ROBERT V. LEWIS, M.D.
of Providence, Rhode Island

- I. *AN ACCOUNT OF THE LIFE AND WRITINGS OF HERMAN BOERHAAVE* by William Burton, M.D. In Two Parts, With an Appendix. Second Edition. Henry Lintot, London, 1746

The long shadow of Herman Boerhaave on medical education is as sharp today as it was almost three hundred years ago when he justly achieved the title "Communis Totius Europae Praeceptor" (The Common Teacher of All Europe). With the three hundredth anniversary of his birth occurring in another year and with a ferment in medical education, one may with profit go back to this founding teacher of clinical medicine, and in no better way than by reading this account by William Burton, M.D., a student of Boerhaave's who published his biography less than five years after Boerhaave's death. A briefer Boerhaave biography, that of Doctor Samuel Johnson, appeared written in "Gentlemen's Magazine" shortly after Boerhaave's death.¹

If the name of Herman Boerhaave is not widely familiar three hundred years after his birth, the ideal which he personified is recognized by every serious student of medicine. His classical education in the arts and humanities was impeccable. Conversant in English, Dutch, French, and German as the modern languages of his day, he was equally at home in Greek, Hebrew, and Chaldean. Before studying medicine, he had completed his philosophy degree and taught mathematics. He received an M.D. Degree from Harderwyck in 1693 and began teaching at the University of Leyden in 1701. At his instigation a small twelve-bed hospital was established, where he was the first after Hippocrates to insist that the proper study of medicine was at the bedside, and that all theoretical considerations stopped there and only those relevant and pertinent to the clinical problem at hand should be given voice.

He was thoroughly grounded in basic science, especially mathematics, and was foremost in the experimental chemistry of his day. In 1718 he was appointed not only Professor of Medicine, but also Professor of Chemistry. His avocation as botanist, which he had acquired as a young man working in

his father's garden, led to the added title of Professor of Botany in 1709.

But all of these attainments do not make for a complete physician in the modern sense. He was of necessity a busy practitioner — the greatest and ablest in Europe. His fame was carried to the far corners by his students, many of whom had found Professorships in Continental and British universities, especially Edinburgh. He had that rare gift of practicality which allowed him to reap the rewards of his labors; he amassed a fortune which, in keeping with a man of distinction and taste, was used mostly in philanthropic and civic enterprises.

In his "Opera Medica Omnia" are found sound basic treatises on chemistry, diseases of the nervous system, the eyes, syphilis, and the methods of teaching medicine. Among his greatest works are the following discourses: "De Commendando Studio Hippocratico," "Institutiones Medicae in Usus Annuae Exercitationis Domesticos," "Aphorismi de Cognoscendis et Curandis Nobis in Usum Doctrinae Medicinae," "De Comparando Certo in Physicis," and "Elementa Chemiae." Each year he began his medical lectures with the first of these, a plea for the study of Hippocrates.

Among the ancient writers Boerhaave owed a debt principally to Hippocrates, and among the modern to Sydenham. Burton from his own personal knowledge states that Boerhaave's characterization of Hippocrates seemed more a description of Boerhaave himself, so carefully had he studied and emulated him. Boerhaave had written of Hippocrates: "By his incessant attention, singular penetration and indefatigable applications, he made a larger collection of the signs and symptoms of diseases than perhaps all other writers ever since. His narrations are simple, perspicuous, methodical, accurate, modest, frank and faithful. His observations were minute and important; he became excellent both in distinguishing cases and foretelling their events; nor was his sagacity in discovering remedies greater than his benevolence in communicating them. He was neither precipitant in the application nor in determining the effects of them, neither con-

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cealed his bad, nor boasted of his good success. He was rather an imitator and affilant of nature rather than a disturber. He truly saved all who recovered without being the executioner of those that miscarried under his care. After making the best use of the records that descended to him, the nineteenth physician by succession in his family, and having improved himself by traveling into various countries, he taught a great number of scholars, many of whom afterwards situated in different parts of the world informed him of whatever occurred worthy of his notice, and from these qualifications and assistances he compiled his almost consummate collection of observations."

His exemplary gift as teacher Burton illustrates in this way: "Boerhaave's pupils could not but observe in his lectures on the medical institutions how judiciously he interspersed chemistry so as to render this art, by his singular application of it, subservient to the illustration of them."

As a consultant, according to Burton, he had no peer: "In counsel and consultations, no man was more condescending and desirous to cultivate concord. He was more apt to distrust than to confide in himself. In medical consultations he was remarkable for his address towards senior physicians, and his courtesy to the rest. He never made his own works or affairs the subject of discourse, and his reply to any question concerning them manifested

a regard solely to the benefit of the inquirer without sounding or seeking his own praise, while his good nature often led him to exceed in the praise of other authors."

In 1718 Boerhaave was made Rector of the University of Leyden. As an administrator he was praised for his fairness, honesty, and humanity. With financial success assured he indulged himself with a magnificent country house at Oegstgeest, where he spent most of the last years of his life. He had a garden of over eight acres with all the exotic trees and shrubs that would conceivably grow in that climate. He rose daily at four in the morning in summer and five in the winter, and never retired before ten in the evening. His mornings were devoted entirely to study, teaching, and public business, and afternoons to exercise, hiking, and riding. An accomplished musician, he frequently turned to music for relaxation in the evening, followed by a period of study before retiring.

In 1727, eleven years before his death, he was obliged to retire from his professorships, but continued his other affairs. In 1737 he described symptoms characteristic of arteriosclerotic heart disease and congestive failure. In his own account we recognize paroxysmal nocturnal dyspnea, Cheyne-Stokes breathing, and peripheral edema: "An impostumation of the lungs has daily increased for these last three months. It almost suffocates me upon the least motion. Finding also unusual pulsations of the artery in the right side of the neck and intermissions of the pulse, I conclude there are polypous concretions between the heart and the lungs, and the dilation of the vessels. It is a year since application and immodest fatness have produced an utter inaptitude for any kind of exercise in such a heavy, corpulent body, full of inert humors; and upon the least motion gasping for breath, with a pulse strangely irregular. But the most urgent symptom was the interruption or stoppage of respiration on falling asleep, and the prevention of any rest by a sudden, terrible sensation as of strangling, upon which the abdomen and all the parts below it became dropsical."

Burton reflects on Boerhaave's death: "But in vain we reflect on what is irrecoverable; better were it to improve those remains in which he may be said still to survive, and ever will as long as diseases exist; while Philosophy and Physics are cultivated. Happy would it be for Europe could he be said to live in those disciples also who from his school as the grand seminary of medical science, have been translated into the several regions of it."

Indeed, Burton's wish has in no small way been realized. Almost the entire faculty of the University of Edinburgh were students of Boerhaave. The foundation of the first medical school in America,

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the University of Pennsylvania, was founded by the second generation of Boerhaave disciples who had received their education in Edinburgh. The curriculum and standards of education laid down in the discourse on "The Institution of Medical Schools in America" by John Morgan, are truly but a reprint of Boerhaave's plan at Leyden. Boerhaave's testament to the profession of Medicine and the men who followed him is best given in his own words directed to the curators of the University of Leyden upon his retirement: "I congratulate you, upon leaving the University, for so flourishing a condition, with such an ample fund for the sciences; but in particular for the establishment and augmentation of medicine and raising it to the highest degree of dignity and usefulness, which doubtless will be affected by the concurrence of the present four Professors of Physic, indisputably men of the first rank in their respective provinces. Under such presidents, the Hippocratic School may promise itself perpetual honors, and increase."

REFERENCE

¹Lives of Eminent Persons — Boerhaave, THE WORKS OF SAMUEL JOHNSON, LL.D., by Arthur Murphy, Esq., Vol. XII, page 11. Printed for Thomas Tegg, et al., London, 1824

II. JOHN MORGAN, CONTINENTAL DOCTOR by Whitfield J. Bell, Jr. University of Pennsylvania Press, Philadelphia, 1965

"Un fat bonhomme" (coxcomb), John Morgan, M.D. of Philadelphia was called by James Boswell in his diary of August 1763, the two having briefly toured Holland together.^{1,2} Whitfield J. Bell's description of this pioneer educator in American Medicine is more flattering. Founder of medical societies and promoter of scientific organizations, Morgan was most responsible for the establishment of medical schools in the United States and for the curriculum from which that of our own time is principally derived.

Evan Morgan, John's father, came to Pennsylvania in 1717 from Wales. Their Celtic inheritance in America and the key to John Morgan's character is found in the family Bible where his grand father wrote, "I, David Morgan, gentleman of Wales, bequeath to my descendants in America the comfortable certainty: they came from neither kings nor nobles but from a line of true gentlemen and women with unstained names." The Celtic character so aptly described by Matthew Arnold is personified by Morgan: "genius and sentiment as its main basis with love of beauty, charm and spirituality for its excellence; ineffectualness and self-will for its defect."

Young John Morgan was bright and ambitious. He obtained the first part of his medical education after a liberal education in preparatory schools, as

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an apprentice to John Redman who had studied under Munro at Edinburgh and had received his Doctorate in Medicine from the University of Leyden. After six years' apprenticeship Morgan was appointed apothecary to the Pennsylvania Hospital, the first hospital in America. After a short spell as a frontier surgeon he studied medicine at the University of Edinburgh. Following graduation, he made the grand tour of the Continent. In recognition of his capabilities, but not without some exertion on his own part, he was presented both to Voltaire and to the reigning Pope. He later became a member of the Royal Academy of Surgery at Paris, the Royal College of Physicians of Edinburgh, and "The Arcadian Belles Lettres Society" at Rome.

He was extraordinarily well educated in the arts, letters, and science; his collection of paintings and works of art in Philadelphia were renowned. Yet his original contributions to science were extraordinarily meager. His only scientific work was the perfection of a method of anatomical injection which he had learned from John Hunter and his brother, William, and which was his basis for his election to the Royal College of Surgeons at Paris. An unscrupulous claim to originality evoked the anger and wrath of the Hunters.

He was actively engaged in the political maneuvers within the scientific societies of his day, which eventually resulted in the emergence of the American Philosophical Society of Philadelphia.

By the time he became first Surgeon General of the American Army his pattern of behavior was well established, and he was old enough not to change. He was dedicated to ideals of perfection and also the proposition that he should be the high priest of this Utopia. He attained neither in the Rebel Army of 1776. His lot was one of continual frustration, while his powers were seriously limited. He was totally incapable of the political compromises and acceptance of something less than perfection required of greatness. The Preacher tells us that "the race is not always to the swift, nor the battle to the strong," and John Morgan's career bears it out well. He was relieved of his command as Surgeon General and replaced by Thomas Shippen, his personal arch-rival in the Medical Establishment at Philadelphia. Shippen too was trained at Edinburgh, and held similar ideals of medical education. After reviewing the evidence concerning Morgan's release and Morgan's subsequent charges against Shippen's management of the medical affairs of the Continental Army, Bell concludes that Morgan fully vindicated his own tenure as Surgeon General, and that Shippen to say the least was guilty of impropriety. Physicians have played an important role in all of our major wars. Both

John Morgan and Thomas Shippen, leading physicians of Philadelphia, did not hesitate to leave their practices and devote their professional services to their country.

In his famous dissertation, "Discourse Upon the Institution of Medical Schools in America," he called for the establishment of the medical school which we now know as the School of Medicine of the University of Pennsylvania. Full of invective against the current standards of medical training, it did little to endear him to his colleagues, but nevertheless charted a clear course for good medical education in America. His vision has come to fruition.

Established in Philadelphia, the system was really that of the University of Edinburgh, which in turn stemmed from the clinical teaching established at Leyden by Boerhaave in 1701.

With equal vigor, but with less success, Morgan aspired to be the Father of the American College of Physicians. His failure to establish a College of Physicians in Philadelphia equal in function to the Royal College of Physicians of Britain was due entirely to his shortcomings of personality, his lack of tact, and what appears to have been an almost narrow drive for personal power.

Morgan's career, which reached its climax with the publication of the "Discourse Upon the Institution of Medical Schools in America," ended when the revolution in medical education for which the rebel had fought was a *fait accompli*.

The last ten years of Morgan's life, until his death in 1789 at the age of fifty-four, evoke a sense of tragedy. He continued his teaching, his wide correspondence with friends at home and abroad, and his practice. His financial status was satisfactory, but he failed to attain leadership in the academic, the scientific, or the professional worlds. He was childless; his wife, who had been a source of comfort, died at an early age. John Morgan, an idealist, did much for his country in fighting to establish the institutions he cherished. Yet in his personal life he appears to have failed because he did not somehow fully understand the immensity of life's challenges, nor the frailty and pettiness of most of his fellow men. He did not rise above life, and in the end it submerged him.

Whitfield Bell on the 300th anniversary of the founding of the University of Pennsylvania has served us well by bringing posthumous honor to the name of John Morgan.

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- ¹BOSWELL IN HOLLAND 1763-1764. Edited by Frederick A. Pottle. McGraw-Hill Book Co., Inc., New York, London, Toronto, 1952
- ²JAMES BOSWELL, THE EARLIER YEARS, by Frederick A. Pottle. McGraw-Hill Book Co., Inc., New York, London, Toronto, 1966



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DISTRICT MEDICAL SOCIETY MEETINGS

WOONSOCKET DISTRICT MEDICAL SOCIETY

The annual meeting of the Woonsocket District Medical Society was held December 20, 1966 at Woonsocket Hospital. The meeting was called to order by the president, Dr. Alton Thomas, at 9:00 P.M.

Present were the following physicians:

F. Edward Yazbak	Patrick Lesvesque
Joseph Reilly	Albert Rocco
Gerald Lamoureux	Leonard Staudinger
Harry Levine	Philip Morrison
Cyril Israel	Euclid Tremblay
Wilfred Ethier	Paul Boucher
Raymond Lancaster	Dominic Ferrucci
Francis Scarpaci	Orazio Basile
George Crepeau	Jeffim Weremchuk
Thomas Lalor	Edward Medoff
Francesco Cannistra	Henri Gauthier
Roger Fontaine	Juan Mallari
Francis Vose	Charles Charon
Charles Pope	S. Wittes
C. Scarano	Roger Berard

The minutes of the special meeting Friday, November 25, 1966 were approved as read.

The treasurer's report is appended.

Upon reading Carlo J. DeStefani's request for a transfer from the St. Louis Medical Society to the Woonsocket District Medical Society, Dr. Francis Vose moved the acceptance and Dr. Yazbak seconded the motion. The vote in favor of acceptance was unanimous.

Following the reading of a communication from the Rhode Island Medical Society urging the local society to form a utilization review committee, Dr. Morrison moved that the Woonsocket District Medical Society form a utilization review committee composed of those members of the utilization review committee of the Woonsocket Hospital and the Mercy Hospital. This was seconded and the motion was carried unanimously.

There followed considerable discussion concerning the difficulty of the Rhode Island Medical Society in negotiating an acceptable schedule of fees with the department of Social Welfare. This schedule of fees is to apply to Title 19 of the Social Security Act. Dr. Roger Fontaine pointed out that although the Rhode Island Medical Society has been negotiating with the department of Social Welfare for a period of six months the schedule is

still not agreed upon. At its last meeting the house of delegates voted to take no action for 90 days and to ask the Federal Government to mediate this dispute. Dr. Lamoureux then made the following motion which was seconded by Dr. Morrison. The Woonsocket District Medical Society supports the action of the Rhode Island Medical Society and urges its members to follow its course of action. The president of the local society is instructed to determine the course of action of the Rhode Island Medical Society and to inform each member by letter before January 1, 1967. The vote in favor of this motion was unanimous.

The nominating committee submitted the following slate of officers:

President	Paul Boucher
Vice President	J. Gerald Lamoureux
Secretary	Alton Thomas
Treasurer	Raymond Lancaster

(The councillor of the Rhode Island Medical Society is Dr. Harry Levine. The delegates are: Leonard Staudinger, M.D., Roger Berard, M.D., Roger Fontaine, M.D., Harry Levine, M.D. councillor. Their term of office is for five years and terminates in December 1967.) Dr. Tremblay then made the motion to instruct the secretary to cast one vote for the slate of officers as presented above. Dr. Morrison seconded the motion and this was also carried unanimously. The secretary duly cast one vote and the president then declared the officers duly elected.

Dr. Boucher then presided and his first action was to present to the retiring president, Dr. Alton Thomas, a gavel engraved with the dates of his term of office.

Dr. Tremblay made a motion commending Dr. Thomas for his excellent leadership during his term of office. This was moved by acclamation. The meeting adjourned at 10:50 p.m.

Respectfully submitted,

J. GERALD LAMOUREUX, M.D., *Secretary*
Woonsocket District Medical Society

PROVIDENCE MEDICAL ASSOCIATION

A meeting of the Providence Medical Association was held at the Rhode Island Medical Society Library on Monday, December 5, 1966. The meeting was called to order by the President, Dr. Stanley D. Simon, at 8:30 p.m.

Minutes of Previous Meeting

A reading of the minutes of the November meeting was dispensed, and the President noted that the minutes would be published in the Rhode Island Medical Journal.

Report of the Secretary

Dr. Bertram H. Buxton, Secretary, reported that the Executive Committee had submitted a proposed slate of officers and delegates to the House of Delegates of the Rhode Island Medical Society with the November meeting notice, in accordance with the bylaws. He noted that counter nominations must be filed at least 10 days prior to the Annual Meeting schedule for January 9, 1967.

Election of New Members

The Secretary reported that the Executive Committee had approved of the applications for active membership in the Association of the following physicians:

Salomon Alfie, M.D.

Sancho C. Anenias, M.D.

Alfred C. Moon, M.D.

John A. Murphy, M.D.

A motion was made, seconded and voted that the applicants as recommended be elected to active membership.

Announcement of Meeting

The President announced that members of the Association are invited to a meeting of the Clinical Diabetes Association to be held at the Medical Library on Wednesday, December 14.

Scientific Program

The President introduced Dr. Frederick J. Stare of Boston, Professor of Nutrition and Chairman, Department of Nutrition of the Harvard School of Public Health, who spoke on "Nutrition and Atherosclerosis."

Doctor Stare reviewed some of the early studies which related fat content in the diet to blood cholesterol levels. He reviewed the Formula Feeding Studies where persons on a corn oil malted skim milk and carbohydrate formula decreased their blood cholesterol levels increased.

He related an increased incidence of atherosclerosis in a group of 1,000 persons who had increased blood cholesterol levels. He noted that an hereditary factor was involved in atherosclerosis and coronary artery disease. Other factors besides heredity and increased blood cholesterol levels, which predisposed to the development of atherosclerosis and coronary artery disease, were:

1. Cigarette smoking
2. Diabetes
3. Obesity
4. A lethargic personality
5. Hypertension

There is a direct proportion to the number of fac-

tors present and the incidence of coronary artery disease.

A person who is gaining weight by increasing his caloric intake from carbohydrate despite a low saturated fat dietary content will also increase his blood cholesterol level. If he exercises actively enough to decrease his weight, even with the same caloric intake he will reduce his blood cholesterol level. Even if an increased (175-200 gms.) saturated fat content is present in his diet, active enough exercise to avoid weight gain will prevent an increase in his blood cholesterol level. Thus, utilizing extra calories by exercising prevents the build-up of cholesterol levels.

Doctor Stare next discussed the Ireland-Boston Heart Study which was a 5-year study of pairs of blood brothers born in Ireland of Irish parents where one brother was living in Boston for 10 or more years while the other remained in Ireland.

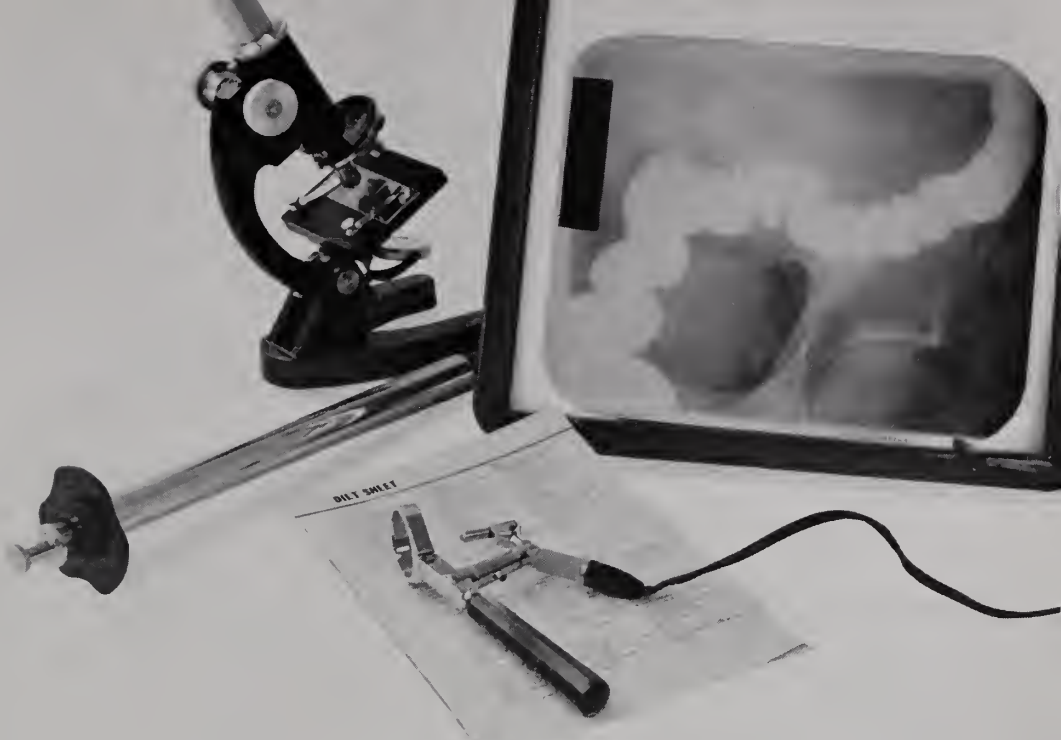
There was a two times greater incidence of heart disease in the Boston brother than in their Ireland based counterparts and cardiac lesions were more profound in the Boston-Irish brothers. This points up the beneficial active life where hard labor and walking are much more prevalent than in our American "Affluent Society." Actually dietary intake in Ireland is 400-500 calories more per day than in the Boston group, but the Irish brothers weighed less and their blood cholesterol levels were 10 mg. per cent lower than their Boston siblings, despite the fact that their chief dietary items in Ireland include butter, milk, eggs, and meat.

Doctor Stare's group at Harvard has tried to isolate those components in the unsaturated fats which caused increased blood cholesterol levels. In a special ward at the Danvers State Institution, 22 subjects were studied. Their blood cholesterol levels ranged between 225-240 mg. per cent. The purpose of this study was to define that substance in the multiple saturated fats which most likely affected blood cholesterol levels. Eighty-seven different types of diet were studied. Myristic acid, a 14 chain fatty-acid, proved to be the most culpable saturated fat. Butter and coconut-oil, crackers and chocolate candy contain large amounts of this fatty-acid. Palmitic acid, a 16 chain oleic acid, was less culpable and stearic acid had little influence in blood cholesterol levels.

There is little question today concerning the influence of the cholesterol content in the diet on a person's blood levels. For each 100 mg. of cholesterol in the diet there is a 5 mg. increase in blood cholesterol. This influence was measurable after a 10-day period.

The following food substances are high in cholesterol content: Calf-brains, Sweet-Breads, Liver, Egg-Yolk, Shellfish, Shrimp, and Lobster. Milk

(Continued on Page 128)



in digestive disorders:

B and C vitamins aid therapy. Nausea, vomiting, and severe diarrhea may seriously interfere with the digestion and absorption of nutrients. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, may help meet the needs of these patients. In digestive disorders, as in many stress conditions, STRESSCAPS vitamins aid therapy.

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Each capsule contains:

Vitamin B ₁ (as Thiamine Mononitrate)	10 mg
Vitamin B ₂ (Riboflavin)	10 mg
Vitamin B ₆ (Pyridoxine HCl)	2 mg
Vitamin B ₁₂ Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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PROVIDENCE MEDICAL ASSN.

(Continued from Page 126).

is not an important factor due to the ordinarily low adult intake. An 8 oz. glass of milk contains 1/10th the cholesterol content of 1 egg yolk — skimmed milk is very low in cholesterol content.

To lower the blood cholesterol levels by 10 per cent, obese patients must lose 5 lbs. of weight. Effective measures also include the substitution of polyunsaturated fats for the saturated fats and increased physical activity.

In a lead article in the October 31st J.A.M.A. the importance of fluoride in diminishing osteoporosis was confirmed. An additional finding from X-ray studies in women 45 years or older was the diminished amount of aortic calcification where the water contained generous amounts of fluoride. Thus we may assume that fluoride keeps calcium in the hard tissues of the body and diminishes the soft tissue deposition of calcium. Doctor Stare wonders whether this fluoride regime would spare calcific bursitis and calcification of the cerebral vessels.

Doctor Stare does not believe that starch and sugars have any causal relation to blood cholesterol levels.

The meeting was adjourned at 9:50 p.m.

Attendance 63

Collation was served

Respectfully submitted,

BERTRAM H. BUXTON, M.D.

Secretary

PROVIDENCE MEDICAL ASSOCIATION

A meeting of the Providence Medical Association was held at the Rhode Island Medical Library on Monday, November 7, 1966. The meeting was called to order by the President, Dr. Stanley D. Simon, at 8:30 p.m.

Minutes of Previous Meeting

The minutes of the previous meeting were not read, but Doctor Simon announced that they would be published in the Rhode Island Medical Journal.

Announcements by the President

The President called attention to the meeting sponsored by the Committee on Diabetes of the State Medical Society, to be held at the Medical Library on Monday, November 14, and he urged members of the Association to attend the lecture.

Presentation of Certificates

Doctor Simon awarded membership certificates to physicians elected to active membership in the Association at the October meeting.

Scientific Program

Mr. Ted Chilcoat, field secretary of the American Medical Association, was the first guest speaker of the evening. Mr. Chilcoat, utilizing a film strip and recording, reported on the "AMA Education and Research Foundation."

The second speaker was Dr. Mario G. Baldini, hematologist-in-chief and Director of Research, Pawtucket Memorial Hospital, whose topic was "Autoimmunity."

He characterized autoimmunity as the development of antibodies to one's own cells in contradistinction to heteroimmunity (antibody formation in one species to the cells of another species) and isoimmunity (the development of iso-agglutinins or isohemolysins in an individual to the cells or tissues of another individual of the same species).

Thus Paroxysmal Hemolytic Anemia may be considered an example of autoimmunity with the development of active autohemolysins and auto-agglutinins.

Doctor Baldini then proceeded to conduct a discussion of the intricacies and obliquities of autoimmunity with the breathtaking speed and excitement of a roller coaster ride.

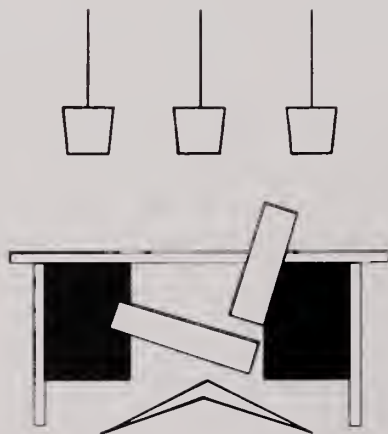
He started with a description of the cellular reaction of immunity originating with immuno-competent cells such as lymphocytes which become so-called pyroninophilic cells and then became the committed lymphocyte which stimulated antibody formation or plasma cells which are thought to produce humoral antibodies.

Although any cell may have the potential of stimulating the production of an auto-antigen there is usually not active antibody produced within an individual to his own cells. This normal state is called immunological tolerance.

All immuno-competent cells, shortly after birth,

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have the ability to discriminate between "self and non-self." Only when a breakdown of the so-called immunological tolerance occurs can a state of autoimmunity exist.

In Hemolytic Anemia the mechanism for the conversion of the "self" to "non-self" immunological state is obscure since the antigen has been so elusive. Modern concepts suggest that the syndrome is due to a diverse set of mechanisms.

For example the auto-antigen might be normally sequestered or isolated like the lens of the eye. A breakdown or abnormal permeability of the "barrier" would then allow the auto-antigen to circulate and thus become active, leading to auto-antibody formation and immunological intolerance. Or the auto-antigen might be an altered antigen which in its "isomer" state is active. Antigenic cross-resemblance has been described to explain the action of "cold agglutinins." Another possible mechanism would be the gradual or late development of antigenic activity as is hypothesized in certain cases of aspermigenesis. A temporary loss of certain antigenic substances or cells may cause the development of immunological tolerances. For example, if an antigen is given to an animal continuously there will be immunologic tolerance until the antigen is withdrawn. The animal will then lose his tolerance and develop active auto-antibodies.

Finally a hapten mechanism may be responsible for producing auto-antigen activity. All of the preceding mechanism are oriented to the antigen itself but autoimmune responses may also have a cellular orientation. Thus somatic mutation of immunocytes or somatic mutation resulting in the development of a competent antigen have been hypothesized.

A third cellular oriented mechanism may be explained by an enhanced sensitivity of the immunocytes.

In Infectious Mononucleosis atypical lymphocytes act as antigens which produce auto-antibodies possibly secondary to somatic mutation.

Runt disease may be thought of as an analog of autoimmunity. If F_1 hybrid mice are injected with parental splenic cells runt disease can be produced in the offspring. These animals have many of the physical and laboratory findings common to autoimmunity states — i.e.: hunched posture, ruffed fur, alopecia, weight loss, splenomegaly, hemolytic anemia, leukopenia, thrombocytopenia, and a strongly positive Coombs' test. It is possible that maternal leucocytes may pass through the placenta and enter the fetal circulation. In the fetal stage of existence the cells may be tolerated well but later as maturity develops these cells may stimulate the production of antibodies.

This may explain the development of lymphosar-

(Continued on Page 130)

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when he just can't sleep

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**Sodium Amobarbital and
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(One-Half Sodium Amobarbital and One-Half Sodium Secobarbital)



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

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comas, certain leukemias, and Hodgkins disease which resemble in many respects runt disease.

In the NZB/BL mouse an autoimmune hemolytic anemia is easily produced. The findings which develop on the 140th day of life present many features of autoimmune disease — i.e.: anemia, splenomegaly, strongly positive Coombs' test, germinal center and plasma cell infiltration of the thymus, renal failure, LE cells, cytopenia reticulocytosis as well as hemosiderosis of lung, kidney and spleen.

Autoimmune antibodies have been identified as specific globulins which are present in the serum and target organs of the afflicted individual. These antibodies are 8 globulins or 7S globulins, have a specificity for target tissues and for species. They can be eluted and transferred and react with analogous and homologous tissues.

It is often difficult to confirm an autoimmunity basis for disease if Witebsky's Essential Criteria for this condition are absolutely observed. These criteria are demonstration of free or cell-bound antibodies, the recognition of specific antigens, the production of antibodies which are specific for the antigen involved, and a conformity to the usual pathological patterns of the autoimmune state.

It would seem that if the following three criteria were present — free or cell-bound auto-antibodies, antibody specific for antigen and species specificity — autoimmunity could be assumed.

Thus certain diseases such as Thyroiditis, systemic lupus erythematosus, Hemolytic anemia and of the idiopathic and secondary types as well as the cold hemagglutinin syndrome and paroxysmal cold hemoglobinuria are definite examples of autoimmune disease.

Other pathologic conditions such as idiopathic Thrombocytopenic Purpura, myasthenia gravis, and pernicious anemia are probable autoimmune disorders.

Quinidine induced purpura might be autoimmune in mechanism if the drug forms a hapten combination with platelets and, thus disguised, stimulates antibody formation.

If, however, the drug stimulates the production of an antibody and the resultant antigen-antibody reaction causes clumping of the platelets preventing their free circulation and thus "takes them out of action," an autoimmune mechanism is not present.

Post-transfusion purpura is an iso-antibody reaction to the donors platelets and is not, of course, an autoimmune disease.

Doctor Baldini stressed in conclusion that allergies are not really autoimmune disorders. Autoimmunity is a syndrome in which there is development within the patient's own body of abnormal autoimmune antibodies, which are capable of reacting against the patient's own cells or tissues

producing detectable and rather consistently predictable changes.

The meeting was adjourned at 10:05 p.m.

Attendance 76

Collation was served

Respectively submitted,
BERTRAM H. BUXTON, JR., M.D.
Secretary

EDALOGY

Idiopathic Cecocolic Intussusception

The clinical pattern of intussusception in West Africa is strikingly different from that reported in the American and European literature. To date, a high incidence of cecocolic intussusception has been reported only among the Yoruba people of western Nigeria.

A review of 110 cases of cecocolic intussusception is presented. The lesion constitutes 72 per cent of all intussusceptions reported from the University College Hospital, Ibadan, Nigeria, and it is confined predominantly to the Yoruba tribe. Mean age of onset of the disease is ten years and the process presents clinically as chronic, low grade small bowel obstruction associated with a palpable abdominal mass in the area of the colon. Resection for the obstructing lesion was necessary in only 10.9 per cent of cases and over-all mortality was 6.4 per cent of cases even though more than 60 per cent of the patients had symptoms for more than six days duration. The pathogenesis of the process is discussed but the causes remain obscure.

... Richards, R. C., and Richards, R. C., *Am. J. Surg.* 112:641, (Nov.) 1966

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ONE SENTENCE ESSAY

ALL IS NOT BLACK OR WHITE

The reader who suspects that shades of gray are often closer to the truth (than "improbably stark patterns of black and white") is left with the uncomfortable feeling that there may be another side to the story

...Harold Schmeck in *N.Y. Times' Review of book "The Doctors"* by Martin L. Gross

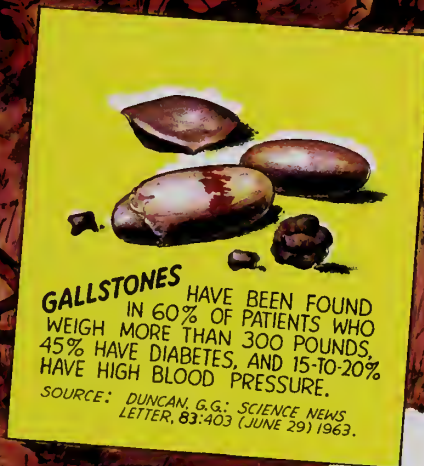


NAPOLÉON BONAPARTE

LOST THE BATTLE OF WATERLOO
BECAUSE HE WAS TOO FAT!

ACCORDING TO THE NEW YORK TIMES OF APRIL 13, 1890, THE DEFEAT OCCURRED BECAUSE HE FAILED TO CHECK HIS INTELLIGENCE INFORMATION. "IT WAS A MATTER OF MERE INDOLENCE AND THIS INDOLENCE WAS CAUSED BY FAT."

SOURCE: JAMA 186:65 (OCT. 5) 1963.



GALLSTONES HAVE BEEN FOUND IN 60% OF PATIENTS WHO WEIGH MORE THAN 300 POUNDS, 45% HAVE DIABETES, AND 15-TO-20% HAVE HIGH BLOOD PRESSURE.

SOURCE: DUNCAN, G.G.: SCIENCE NEWS LETTER, 83:403 (JUNE 29) 1963.



THE BOOK "PRAY YOUR WEIGHT AWAY" URGES READERS TO "ASK GOD TO HELP YOU LIKE EXERCISE" FOR 15 MINUTES A DAY.

SOURCE: REV. C.W. SHEDD: NEW YORK, LIPPINCOTT, 1958.



DIET DROPOUTS

ACCORDING TO DRS. SHIPMAN AND PLESSET "APPARENTLY NO DIETER SUCCEEDS WHO IS VERY ANXIOUS OR DEPRESSED."*

THE AMBAR FORMULA PROVIDES METHAMPHETAMINE TO HELP ELEVATE THE MOOD AND PHENOBARBITAL TO HELP REDUCE ANXIETY.

*SOURCE: ARCHIVES OF GENERAL PSYCHIATRY 8:26 (JUNE 1963).

CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.
Also available: Ambar #1 Extenabs®—methamphetamine hydro-

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methamphetamine HCl 15 mg.,
phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming)

chloride 10 mg., phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming).

BRIEF SUMMARY—Indications: Ambar suppresses appetite and helps offset emotional reactions to dieting. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension.

Contraindications: Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. See package insert for further details.

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(Dimetane[®] [brompheniramine maleate], 12 mg.;
phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.)

up to 10-12 hours clear
breathing on one tablet

It's clear—Dimetapp lets your "stuffed-up" patients breathe easy again. Each hard-working Extentab brings welcome relief from the stuffiness, drip and congestion of upper respiratory conditions for up to 10-12 hours. Yet, patients seldom experience drowsiness or overstimulation. The key to success is the Dimetapp formula: Dimetane (brompheniramine maleate)—along with phenylephrine and phenylpropanolamine, two time-tested decongestants. They get the job done...in a hurry.

Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy. **Precautions:** Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. **Side Effects:** Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.

Dosage: 1 Extentab morning and evening. **Supplied:** Bottles of 100 and 500.

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1. Scholer, J. F.: J. Nuclear Med. 3:41, 1962. 2.
Foeckler, F., et al., Paper, Meet. Soc. Nuclear Med.,
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Meet. Soc. Nuclear Med., June 1962.

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In Neo-Synalar, fluocinolone acetonide controls the inflammation and provides rapid relief from associated pruritus. At the same time, its antibacterial component—neomycin—combats superficial infection caused by many gram-positive and gram-negative bacilli² that often colonize and thrive on abraded skin.¹

A specially formulated vanishing cream base that is greaseless and odor free makes Neo-Synalar cosmetically appealing, and encourages greater patient cooperation.

controls the infection

stops the scratch

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Neomycin rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Neo-Synalar under certain conditions. **Availability:** Neo-Synalar Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

References: 1. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: A manual of cutaneous medicine, Philadelphia, Saunders, 1961, p. 79. 2. Barber, M., and Garrod, L. P.: Antibiotic and chemotherapy, Baltimore, Williams and Wilkins, 1963, p. 111.

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if he just doesn't care?**



**Does he really care?
Is he alert, encouraged,
positive and optimistic
about getting out of bed
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**Or is he giving in to
the depressing impact
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Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B₁) (10 MDR*), 10 mg.; riboflavin (vitamin B₂) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B₆), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.

†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

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This herd is under State and Federal supervision and is free from Tuberculosis and Brucella abortus infections.

Vitamin D Certified Milk is defined as whole Certified Milk rendered antirachitic by irradiation or by the addition of a concentrate and shall be of sufficient vitamin potency to show by biological assay, a content of at least 400 U.S.P. units per quart.

During the past year the analysis of Certified Milk samples has been performed in the laboratory of the State, located in the "State House." The State has been very co-operative in testing this high grade milk for the Milk Commission.

The Sanitary Inspector is appointed by the Commission to supervise the sanitary conditions at the farm and the physician is responsible for the health of the employees at the farm. Both men are licensed practitioners. The Veterinarian to the farm is also appointed by the Commission.

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REUBEN C. BATES, M.D., *Secretary*

Monthly Averages of Certified Milk for 1966

	HILLSIDE FARM Pasteurized			
	Butter Fat	Solids, not Fat	Total Solids	Bacteri per C.C
January	3.8	8.71	12.51	22
February	3.9	8.74	12.64	106
March	3.7	8.84	12.54	175
April	3.7	8.66	12.38	78
May	3.9	8.73	12.63	86
June	4.0	7.66	11.66	117
July	3.8	8.42	12.22	97
August	3.8	8.44	12.24	151
September	3.8	8.65	12.45	81
October	3.8	8.60	12.40	47
November	4.0	8.63	12.63	49
December	4.1	8.62	12.72	46
Yearly Average	3.8	8.55	12.42	88

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Dvorak was induced to visit America by the persuasion of Mrs. Jeannette M. Thurber, to direct a school of music, the "National Conservatory" in New York City, which she had founded six years before. The salary Dvorak would have found difficult to decline. It was six times what he received at the Prague Conservatory, and would enable him to compose as he wished for the rest of his days. It was in October, 1892, that the composer arrived in New York.

... From program notes to Anton Dvorak's New World Symphony, Boston Symphony Orchestra.

ONE SENTENCE ESSAY

State Governments Please Note!

When agencies become accustomed to new-found authority, I am confident the desirability of having a contented profession will outweigh any effort by minor officials to be autocratic and rigid.

... from The AMA and the Federal Government Address of President Charles L. Hudson before the 20th Clinical Convention of the AMA, Las Vegas, Nov. 28, 1966

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TO BUY:**

Office furnishings (examining tables, etc.); instruments; proctology chair (new); X-ray with fluoroscope; diathermy (new); electricator (new); physical therapy machine; many additional items.

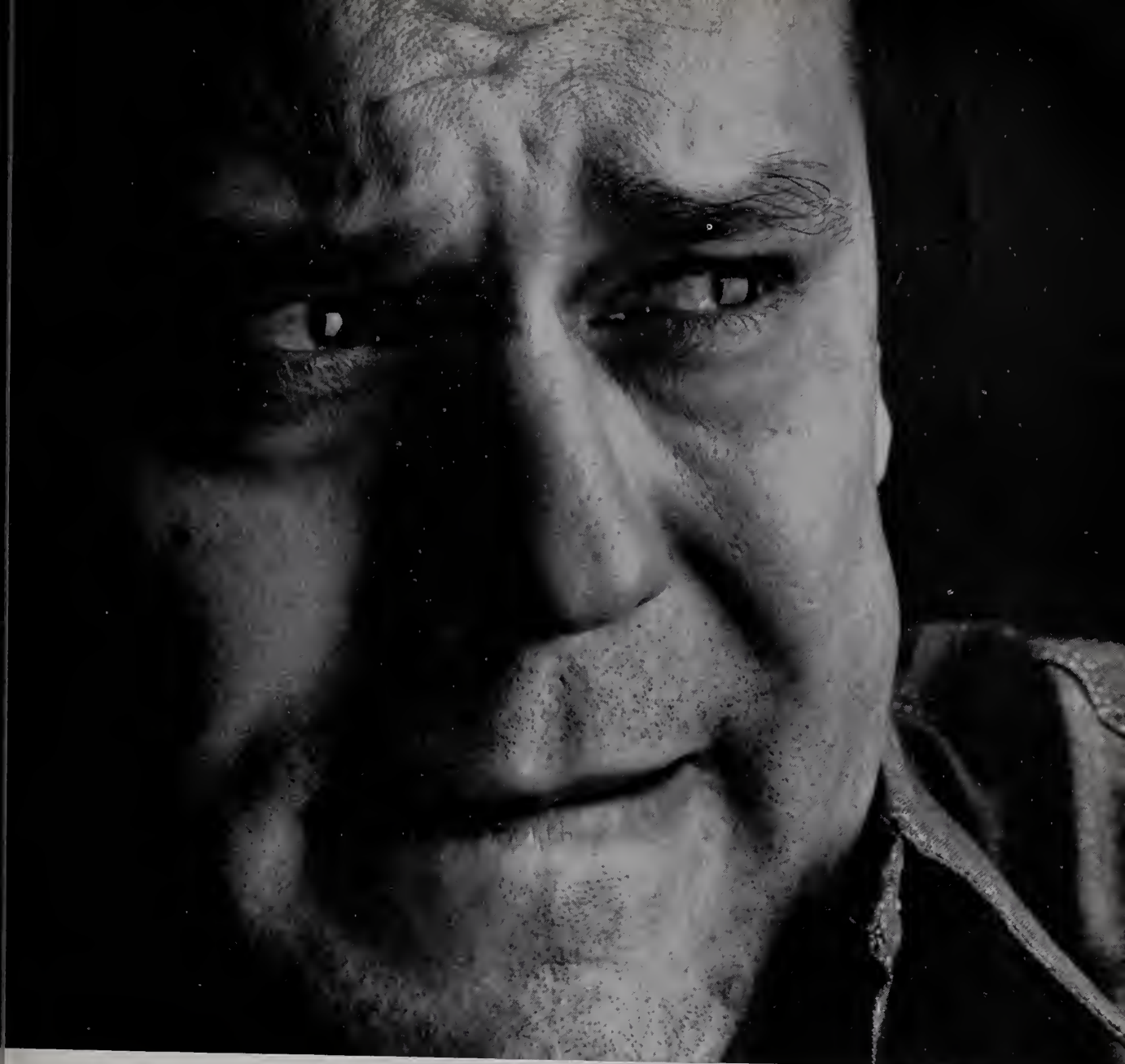


Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available: epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; anti-

histamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β -hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

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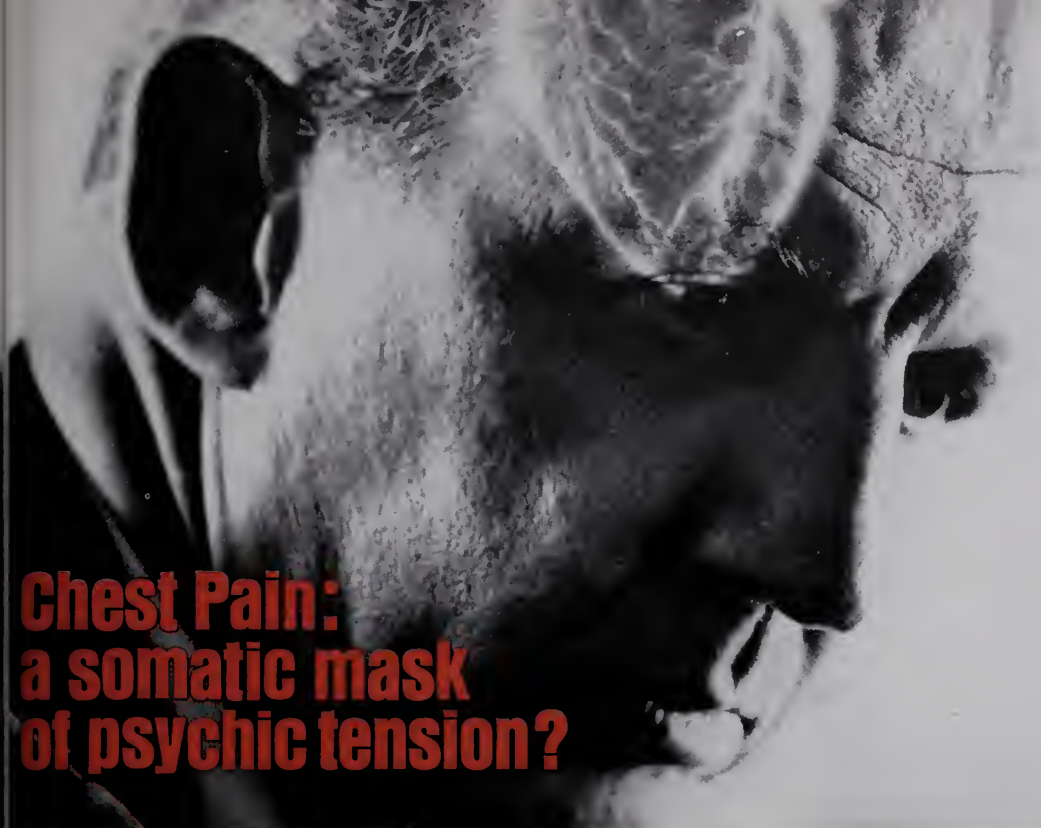
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The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. **Contraindications:** Patients with glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction. **Precautions:** Use with caution in the presence of hypertension, hyperthyroidism, or coronary artery disease; and, in patients who may operate vehicles or machinery, warn of possible drowsiness. **Note:** Since the iodine in isopropamide iodide may alter PBI test results and will suppress ¹³¹I uptake, it is suggested that 'Ornade' be discontinued one week before these tests. **Side effects:** Drowsiness; excessive dryness of nose, throat, or mouth; nervousness; or insomnia may occur rarely, but are usually mild and transitory. Other known possible side effects of the individual ingredients are: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, and difficulty in urination.

Smith Kline & French Laboratories 



Chest Pain: a somatic mask of psychic tension?

"Heart symptoms"—chest pain, tachycardia, arrhythmia—invariably alarm and preoccupy the patient, though they may be completely without organic basis. Such symptoms often are somatic masks of psychic tension, arising from constant encounters with stressful situations.

When the problem is diagnosed as emotionally produced, consider Valium (diazepam) as adjunctive therapy. Valium (diazepam) acts rapidly to calm the patient, to reduce his psychic tension and relieve associated cardiovascular complaints.

NEUROTIC FATIGUE—the chronic tiredness resulting from emotional strain which so often accompanies psychogenic "heart" symptoms—also can be alleviated by this highly useful agent. Valium (diazepam) often achieves results where other psychotherapeutic agents have failed.

Valium (diazepam) is generally well tolerated, and usually does not impair mental acuity or ability to function. If side effects such as ataxia and drowsiness occur, they usually disappear with dosage adjustment.

Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazard-

ous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged over-dosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlorthalidoxime HCl.

Dosage — Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hrs, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

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Nutley, N.J. 07110

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BALCONY

RHODE ISLAND



MARCH, 1967

Medical Journal

HIGHWAY TRAUMA: MEDICAL
AND SURGICAL ASPECTS

See Page 169

Vol. L, No. 3

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Each Pulvule® contains 65 mg. propoxyphene hydrochloride,
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No side effects have been reported, even when massive doses (25 tablets per day) were administered.

Literature on indications and dosage available on request.

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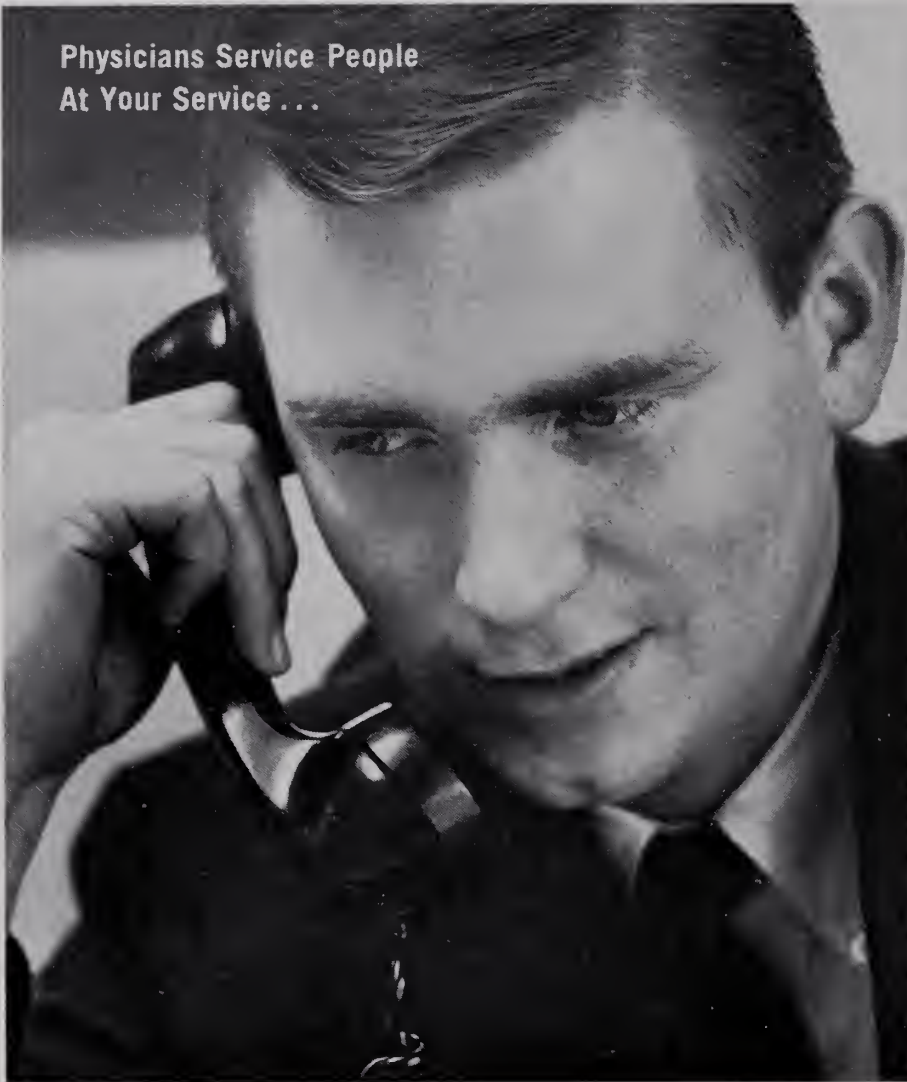


(LTR22)

in vivo measurement of LUTREXIN (Lututrin) on contracting uterine muscle



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The number is 831-7300. The extension is 350.



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The RHODE ISLAND MEDICAL JOURNAL

Vol. L, No. 3

March, 1967

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TABLETS

Equagesic[®]

(meprobamate and
ethoheptazine citrate with
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Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy.

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.
Wyeth Laboratories Philadelphia, Pa.

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on his
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too**

When pain evokes anxiety and tension, thereby heightening patient discomfort, a simple analgesic may only touch on part of the problem.

This single-prescription, non-narcotic product, however, usually provides effective analgesia and helps put the patient's mind at ease.

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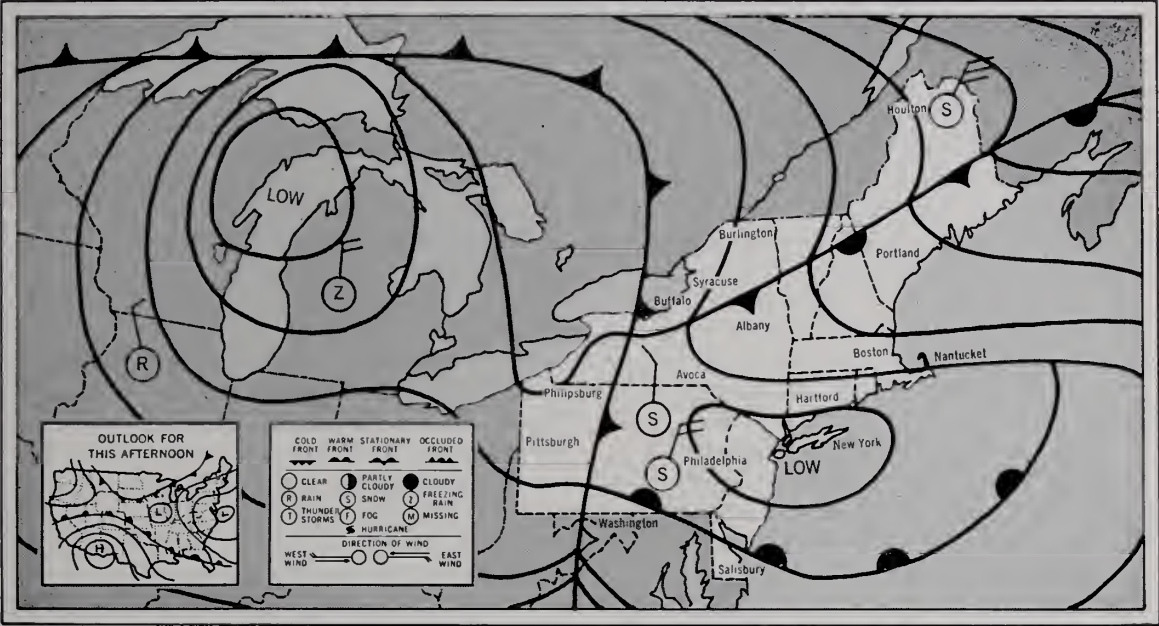


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Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Dosage: Adults—1 tablet, swallowed whole to preserve timed-release feature, in morning, midafternoon and at bedtime. **Side effects:** Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. **Precautions:** The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

DISTRICT MEDICAL SOCIETY MEETINGS

PROVIDENCE MEDICAL ASSOCIATION

The 120th Annual Meeting of the Providence Medical Association was held at the Rhode Island Medical Society Library on Monday, January 9, 1967. The meeting was called to order by the President, Dr. Stanley D. Simon, at 8:30 p.m.

Annual Report of the Secretary

Dr. Bertram H. Buxton, Jr., Secretary, read his annual report, copy of which is made part of the official records of the meeting.

Annual Report of the Treasurer

Dr. William J. MacDonald read his annual report which was received and placed on file, and copy is made part of the official minutes of the meeting.

Annual Address of the President

Dr. Stanley D. Simon, retiring President, delivered his annual address, copy of which is made part of the official minutes of the meeting.

Report of the Executive Committee

The Secretary reported for the Executive Committee as follows:

1) That it had reviewed the 1966 financial report and had approved it subject to professional audit.

2) That the Committee recommends that the annual dues in 1967 for active members be \$30, and for associate members, \$5.

Action: A motion was made, seconded and voted that the annual dues be as recommended.

3) That the Committee recommends for election to active membership Dr. Sergio Magalini of Providence.

Action: A motion was made, seconded and voted that Dr. Sergio Magalini be elected an active member.

Election of Officers for 1967

The Secretary reported that no counter nominations had been filed to the slate proposed by the

Executive Committee and distributed to the membership with the notice of the December, 1966 meeting.

Action: A motion was made, seconded and voted that the slate of nominees as proposed by the Executive Committee, copy of which is made part of the official minutes of the meeting, be elected.

Introduction of New President

Doctor Simon named Drs. William J. MacDonald and Raul Nodarse as a committee to escort Dr. Gustavo A. Motta, the newly-elected President to the rostrum. Doctor Motta expressed his appreciation for the honor accorded him, and then presented an engraved gavel from the Association to Doctor Simon in recognition of his outstanding leadership in 1966.

Presentation of Membership Certificates

Doctor Simon presented certificates of membership to physicians elected to membership in the Association at the December meeting.

Scientific Program

Doctor Simon introduced Dr. Vincent P. Dole, Professor and Senior Physician to the Hospital at Rockefeller University, New York City, who lectured on "Medical Treatment of Narcotic Addicts."

Dr. Dole, although he was told that the problem of narcotic addiction was not a great one in Providence or in the State of Rhode Island generally, warned that because of increasing exposure in urban areas of susceptible people to confirmed addicts this situation might change quickly. He likened the circumstances to those in contagious or infectious diseases where crowding creates epidemic possibilities.

He predicted that just as the study of infections and their control have been our chief preoccupation in the last fifty years, behavioral problems will be our main concern in the next five decades.

A great responsibility is placed upon the physician who dispenses the growing numbers of drugs that are used in behavioral disorders, and he must continue to be interested in sound appraisal of these drugs by appropriate and ethical research.

It was formerly believed that the drug addict was essentially of weak character using drugs to escape reality. Therefore, the traditional therapy was to take away the drug and "shore-up" the individual by psychotherapy. This method of treatment has met with long-term success in only a rare case.

(Continued on Page 147)

OFFICERS — 1967

PROVIDENCE MEDICAL ASSOCIATION

President: Gustavo A. Motta, M.D.

Vice President: William J. MacDonald, M.D.

Secretary: Bertram H. Buxton, Jr., M.D.

Treasurer: Nathan Chaset, M.D.

Councillor (2 year term)

Stanley D. Simon, M.D.

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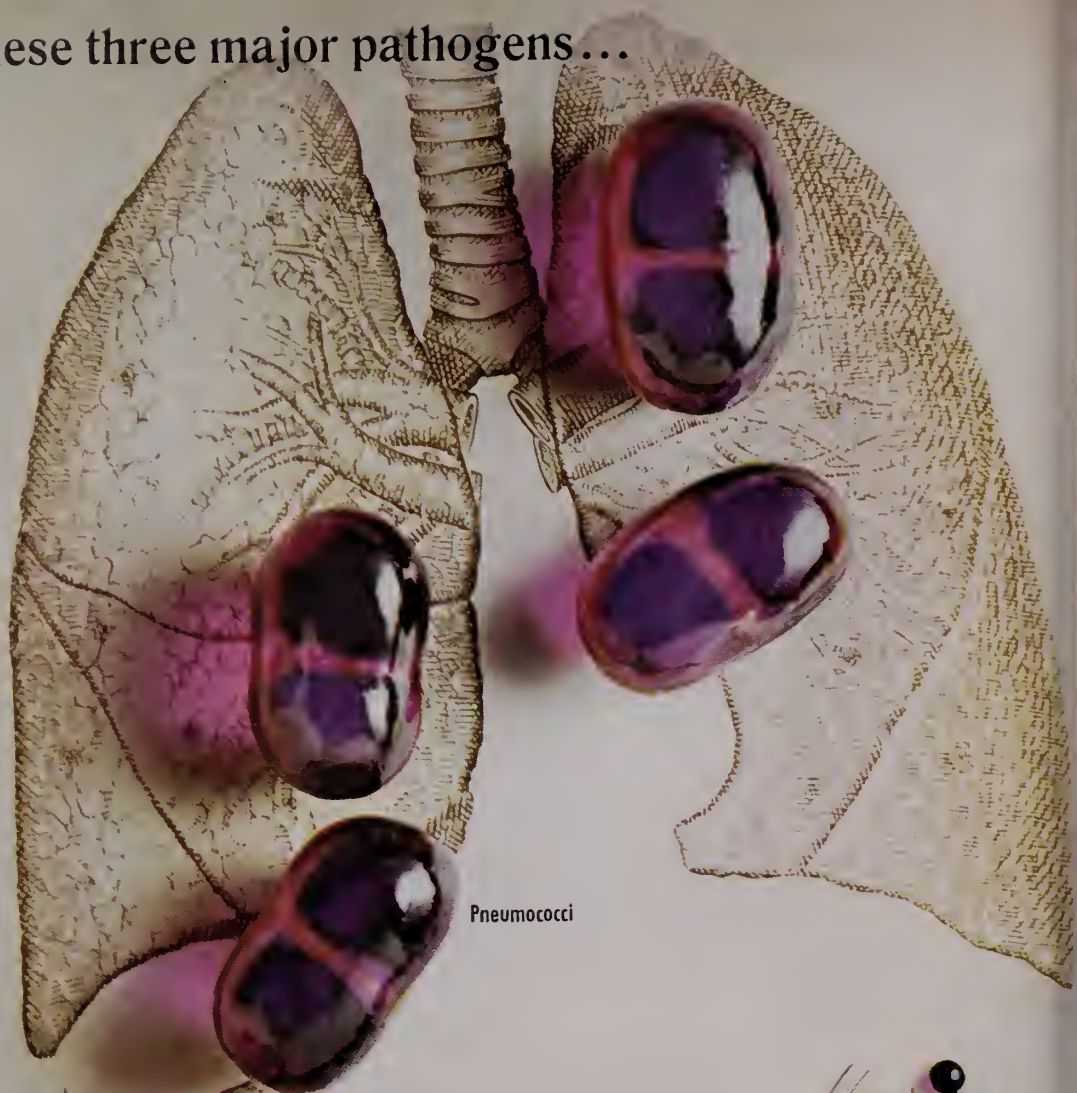
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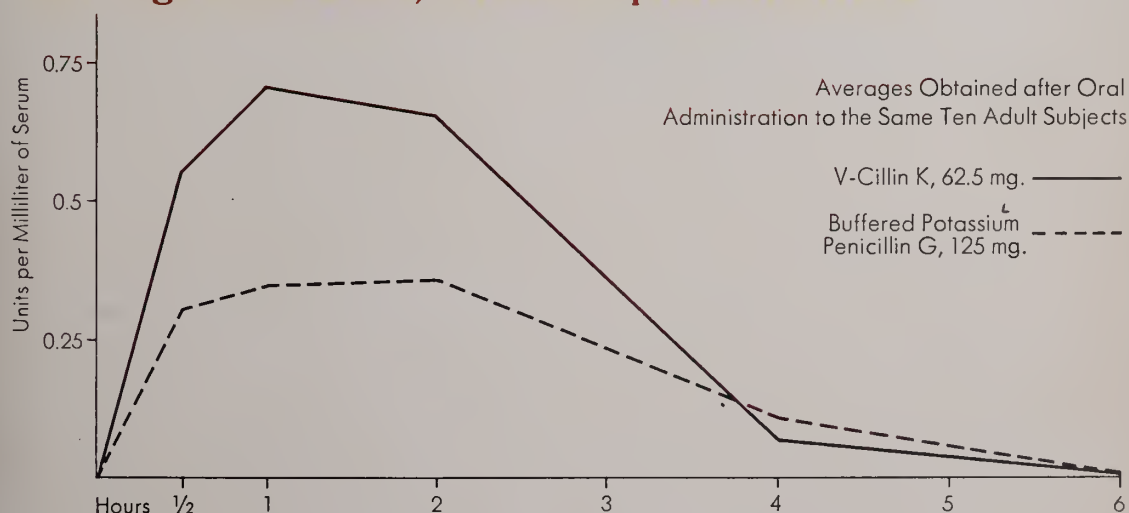
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Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K[®]  700157
Potassium Phenoxyethyl Penicillin

(See next page for prescribing information.)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxy-methyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in

those who have previously demonstrated sensitivity to penicillin. If severe hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, skin rash, symptoms resembling those of serum sickness, and other manifestations of penicillin allergy may occur. When penicillin is administered, measures for treating anaphylaxis should be readily available. Those include epinephrine, oxygen, and pressor drugs. Prompt relief of immediate allergic manifestations as well as antihistamines and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the development of growth of antibiotic-resistant organisms; in such a case, antibiotic administration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderate severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours; three doses may be employed; in females, 500 mg. every four hours; six doses are recommended. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) in bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (800,000 units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) per 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

PROVIDENCE MEDICAL ASSOCIATION

(Continued from Page 146)

Current concepts of drug addiction recognize the composite nature of the problem with chemical, socio-economic as well as psychiatric elements.

Addicts exist in all "walks of life," in all socio-economic strata. The importance of individualization of each case is therefore underlined and Dr. Dole stressed the need for cognizance of the special chemical or pharmacologic problem involved.

The expense of drug addiction as applied both to the addict and the community based on New York City figures is staggering. The mean per diem cost for the heroin addict is \$26 and varies between 5 and 50 dollars. There are 7500 admissions to city hospital facilities because heroin addiction and the per diem cost to the city is \$66,000. This totals an outlay of \$24,000,000 per year or 30-50 thousand dollars per addict per year.

The mean admission rate is 3 per addict per year and the mean stay per admission is 3 weeks. Hospital admissions help the heroin addict to "cut down" on his dosage requirement from time to time but it rarely produces a cure.

The logical question then is should we give addicts drugs if we cannot cure their addiction. Dr. Dole's program has attempted to take away the appetite of the addict for the addicting drug. The drug Methadone can be shown to do this and further allow the addict to become a functional person socially and economically. Such a pharmacologic technic is called a "Narcotic Blockade" without producing the "high state" of heroin usage nor the "sick" state from its withdrawal. Thus the addict immunized against the euphoric effect of heroin and in Dr. Dole's program which has selected the worst addicts (intractable long-term "mainliners") there has been no case of readdiction to date. The addict is maintained in a functional state without appetite for heroin — buffered as it were from the "sick" as well as the "high" zones. Methadone must be continued as a daily administered dose, (much like insulin in the case of the diabetic) or he will drop into the "sick zone." However, heroin will not boost the addict who has been transferred to Methadone from the "sick" to the "high zone." Seventy-two per cent of 308 patients in the program for six months or more who came from the slums of New York (members of minority groups, "drop-outs," ex-convicts, persons alienated from their families, and other futile folk) have not only been "pharmacologically or chemically cured" of heroin addiction but with simple help, guidance rehabilitation and vocational training, are now productively employed.

These remarkable human restorations are now performing better than their unaddicted peers and

when seen in the formal group setting with clinic staff members are often mistaken by outsiders for the doctors.

Dr. Dole's program is now starting its fourth year of experience and the method so far seems to be absolutely safe if maintained under a knowledgeable physician's management. Methadone as a drug has been more thoroughly researched than most of the tranquilizing drugs. At present, although not fully researched, other socio-economic groups are being studied but no long-term results are currently available. Dr. Dole feels that the results should be as highly successful as in the low socio-economic group.

There are legal problems involved in applying this method generally. It appears that Federal authorities have given approbation if adequate facilities, staff and programming are available but certain restrictions may well be imposed in various states — certainly an individual physician should not attempt such a program.

Dr. Dole in conclusion expressed the hope that suitable pharmacologic agents should be sought for the treatment of other forms of drug addiction and felt that we were just on the threshold of a widening potential of psychiatric pharmacology.

Dr. Dole during the question period stated that:

1) At present no schedule for withdrawal from Methadone has yet been put into practice, although such a plan is intended in the future;

2) Tolerance to Methadone also reduces analgesic effects of all drugs used for relief of pain; and

3) That pain from pathologic disorders such as appendicitis might be masked or modified by Methadone in the addict thus potentially introducing a delay in diagnosis and treatment; however, this has not occurred so far in this series.

The meeting was adjourned at 10:15 p.m.

Attendance 87

Collation was served

Respectfully submitted,

BERTRAM H. BUXTON, M.D.

Secretary

PAWTUCKET MEDICAL ASSOCIATION

The regular monthly meeting of the Pawtucket Medical Association was held on Thursday, January 19, 1967 at the Windsor Restaurant, Pawtucket, Rhode Island.

There were 54 members and two guests in attendance.

The reading of the minutes of the previous regular meeting was waived by unanimous vote.

Communications from the Rhode Island Medical Society and from Dr. Frank D. Fratantuono, Consultant in the Department of Social Welfare, were read regarding the establishment of a Utilization Review Committee from the district Medical So-

(Continued on Page 152)

INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

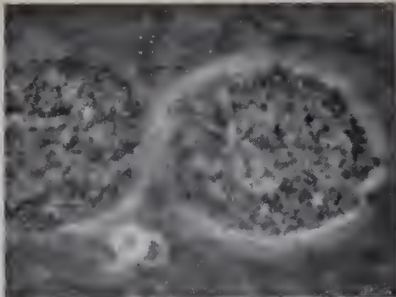


Visual evidence of how corticosteroids influence the inflammatory reaction

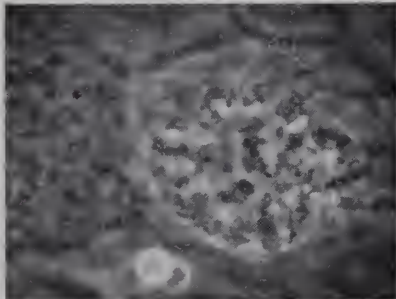
Working with phase-contrast cine-micrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



Phase-contrast microscopy showing mast cell before injury.



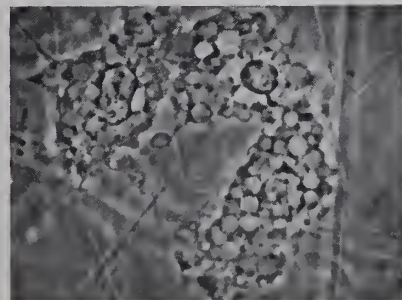
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid — Synalar (fluocinolone acetonide) — the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.

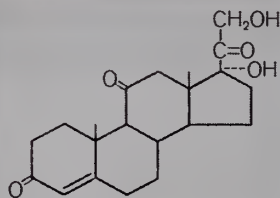


In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

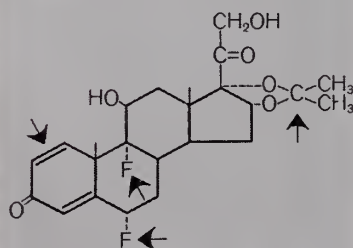
**A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.*

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more corticosteroid. And it can often do it more effectively.



Hydrocortisone

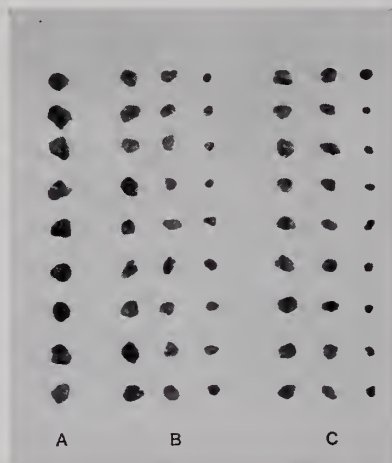


Fluocinolone Acetonide (Synalar)

- ☐ a double bond between carbons 1 and 2
- ☐ fluorine substitutions at both the 6- α , and the 9- α positions
- ☐ the addition of the acetonide at the 16- α , 17- α positions, thus providing one of the most potent topical corticosteroids available.

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY¹⁻⁴ is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B— injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C— injected with fluocinolone acetonide—but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY¹⁻⁴ also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contra-indicated in individuals with a history of hypersensitivity to any of the components. **PRECAUTIONS:** Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for pro-

Representative Clinical Results with Synalar*			
Efficacy Documented in over 4,000 Patients			
Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

longed periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. **SIDE EFFECTS:** Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. *Ann NY Acad Sci* 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. *Proc Soc Exp Biol Med* 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: *Methods of hormone research*, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

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For inflammatory
dermatoses...
by any measure
a topical corticosteroid
of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram
one of the most active topical
corticosteroids available

Rapid and predictable
in antiinflammatory and
antipruritic activity

Results often comparable to
those of systemic corticosteroids
with fewer hazards

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ciety. The following two members of the Medical Society were appointed by the President to serve on the Utilization Review Committee: Dr. Rocco Bruno and Dr. Robert Fortin.

The guest speaker for the evening was Mr. Augustine W. Riccio, Director of the Department of Social Welfare for the State of Rhode Island, whose topic was "Title XIX." In his discussion, Mr. Riccio outlined the program as it was originally conceived and made a law in Congress. He described the state wide plans of implementation as well as the different types of utilization from other states. Mr. Riccio pointed out that his department realized that there were a number of inequities still present and that they were attempting to correct these problems. He complimented the medical profession for their cooperation and asked that the physicians be patient during the initial difficult part of the program. Mr. Riccio attempted to explain to the group what has been a major source of confusion; namely, the interrelation of medicare and state MAA. A very lively question and answer period followed Mr. Riccio's address.

There being no further business, the meeting was adjourned at 10:45 p.m.

Respectfully submitted,

PAUL J. M. HEALEY, M.D.
Secretary



Wherever you go,
forget your telephone
calls. We'll take them
for you, day or night.

MEDICAL BUREAU
of the
Providence Medical Association

P E R I P A T E T I C S

The Miriam Hospital has recently announced the new slate of officers for its Staff Association for 1967. Robert Gorfine, President; Banice Webber, Vice President; Stanley Simon, Secretary; Gustaf Sweet, Treasurer; Executive Committee, Melvin Hoffman and Abraham Saltzman.

* * *

A new slate of officers has taken office at the Rhode Island Hospital: President, Lester L. Vargas; President-Elect, Americo A. Savastano; Vice President, Thomas Perry, Jr.; Treasurer, Frank Merlino. Julius Stoll, Jr. and David J. Fish are new members of the Executive Committee.

At the Rhode Island Hospital seven new appointments have been made: George Resnevic in the Department of Radiology; Vishram B. Rege, Department of Cancer Research; Herbert P. Constantine, Department of Medicine; Henry B. Freye in Pediatrics; John A. Murphy in Gynecology; Vincent F. Vacca in Medicine; Robert Touloukian in Surgery. Leo A. Coleman has been appointed to the Courtesy Staff.

* * *

Mario G. Baldini conducted a superb and heavily attended "Leukemia Symposium" recently at the Memorial Hospital. Maurice M. Albala of the Rhode Island Hospital joined Doctor Baldini in the "Therapy Panel" which concluded the program.

* * *

Fiorindo A. Simeone, formerly of Providence, has been appointed jointly by the Miriam Hospital and Brown University as Director of Surgery at the hospital and Professor of Medical Sciences (Surgery) at the University.

* * *

At the winter meeting of the Clinical Diabetes Association of Rhode Island, Alex Burgess, Sr., presided. Incorporated in September of 1965 with the following officers: William L. Leet, President; William R. Reeves, Vice President; Alton J. Curran, Second Vice President; Blas Moreno, Secretary, and Albert F. Tetreault, Treasurer, the association is now well established and is presenting three scientific programs a year. It is anticipated that Doctor Cornblatt of Chicago will speak at the spring meeting on Hypoglycemia. Milton Hamolsky, the new President-Elect, will preside.

* * *

At the recent Annual Meeting of the Rhode Island Society of Pathologists George F. Meisner was elected President, and George W. Anderson, Secretary-Treasurer. Charles Potter entertained the So-

ciety with an account of his Far Eastern trip this past year.

At the Rhode Island Hospital Harold W. Williams and Rudolph W. Pearson have been presented Captain's chairs upon their retirement as Chiefs of the Departments of Neurology and Otolaryngology respectively. David J. Fish is the new Physician-in-Chief, Department of Neurology and Psychiatry; and Francis L. McNeils is the new Physician-in-Chief, Department of Otolaryngology.

* * *

Americo A. Savastano has recently been appointed to the President's Council on Physical Fitness. It has also been announced that he will be a member of the medical staff for the United States teams in the Pan-American Games at Winnipeg next summer.

* * *

The Roger Williams General Hospital has announced several new active staff appointments: Paul W. Bernstein to the Department of Neurosurgery; Robert E. DeForest, Milton W. Hamosky and Walter R. Thayer, Jr., to the Department of Medicine; Alfred C. Moon to the Department of Radiology, and Thomas H. Rock to Pediatrics. A new member of the consulting staff is William Schaffner.

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CLINICAL DIABETES ASSOCIATION OF R.I.

— SPRING MEETING —

"Carbohydrate Metabolism in the Newborn"

DISCUSSION

Infants of Diabetic Mothers and Neonatal Hypoglycemia

MARVIN CORNBLATH, M.D.

Professor of Pediatrics, University of Illinois
College of Medicine

MONDAY, APRIL 10, 1967
8:30 P.M.

GEORGE BUILDING AUDITORIUM
RHODE ISLAND HOSPITAL
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Interested Physicians and Medical Students
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Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonyleurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

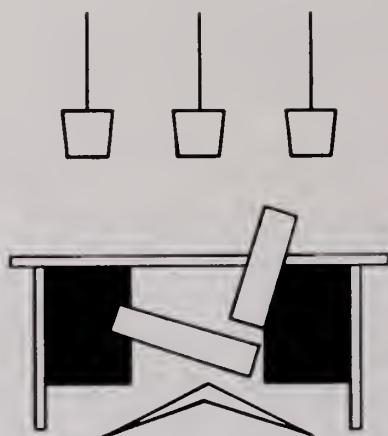
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summary.

Sperling, I.L.: 3 Years' Experience
with Oxyphenbutazone in the
Treatment of Rheumatic Disorders,
Applied Therapeutics 6:117, 1964.

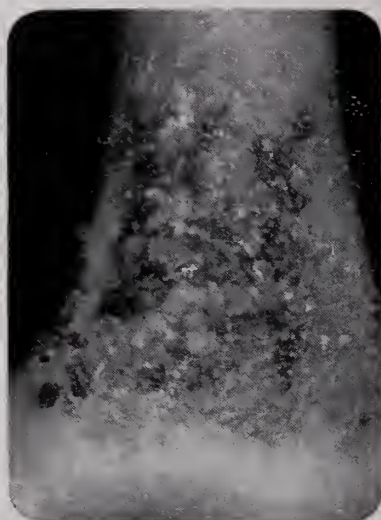
76.9% of 407 patients

Watts, T.W., Jr.: Treatment of Rheu-
matoid Disorders with Oxyphenbu-
tazone, Clin. Med. 73:65, 1966.

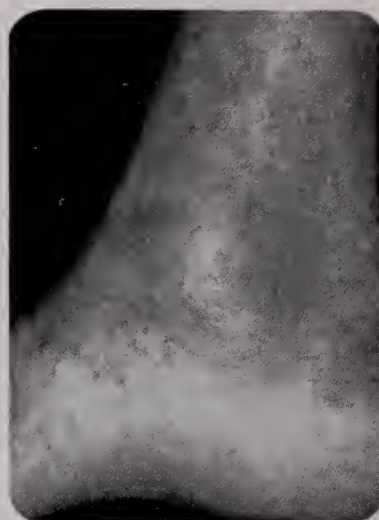
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Eczema of many years... controlled in two weeks



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In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side

effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive non-permeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyoderma will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

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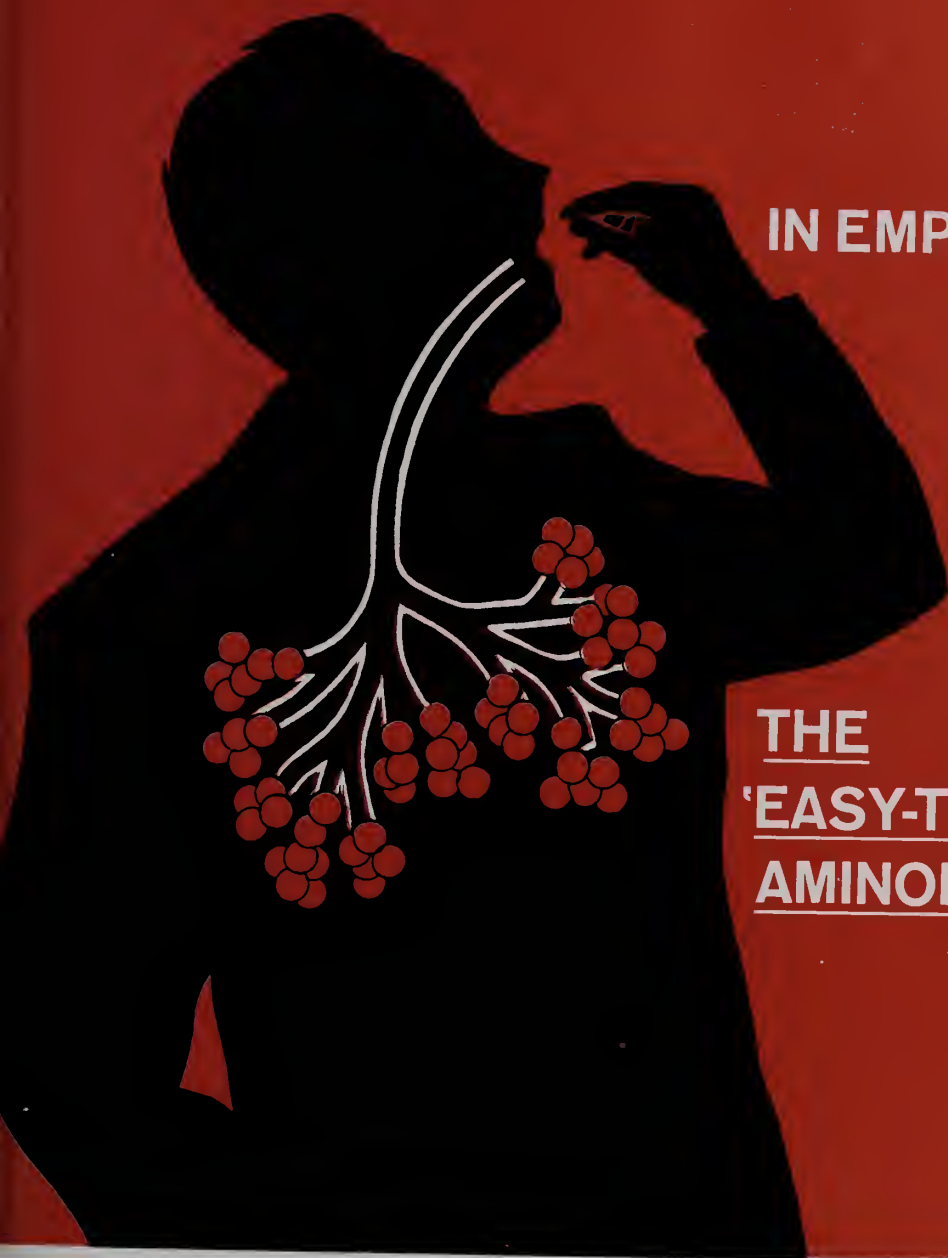
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Aminophylline **dura-tabs**[®]

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

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BOOK REVIEWS

DISORDERS OF THE RESPIRATORY TRACT IN CHILDREN by 29 Authorities. Edited by Edwin L. Kendig, Jr., M.D. W. B. Saunders Company, Philadelphia, 1967. \$26.00

It is a pleasure to welcome the first book on this subject and to report that it is excellent.

There are eleven sections containing sixty-seven chapters and nearly 800 pages. The first section summarizes the modern concepts of respiratory function — the mechanics of respiration, the physical properties of gases. During the last twenty years, a surprising amount of literature on these subjects has accumulated, a knowledge of which should aid in comprehending the diagnosis and treatment of disease states.

The second section includes all the diagnostic and therapeutic procedures with good chapters on x-ray and lung biopsy. The respiratory disorders in the newborn are very well covered in the third section of thirty pages. In sections four and five disorders of the nose, mouth, pharynx, larynx, and ear are discussed.

Sections, six, seven and eight are devoted to infections of the upper and lower respiratory tracts. Bronchiolitis is very well handled, and especially valuable are the chapters on the more unusual diseases such as interstitial plasma cell pneumonia, *Mycoplasma pneumoniae*, and the atypical mycobacteria. I found the article on bronchiectasis with many illustrations worthy of special note. Important for reference are papers on the Hamman-Rich syndrome, pulmonary alveolar proteinosis, and hemosiderosis.

There are thirty-seven pages devoted to asthma. The section on tumors is very good indeed. In section ten, every disease which ever has lung complications is given a chapter. This includes cystic fibrosis, cytomegalic inclusion cell disease, tularemia, the mycoses, chicken pox, rheumatic fever, the collagen diseases, and more.

I have not mentioned all the subjects which are taken up, but I could think of no omissions. The book is well edited and printed without one erratum that I could find. It should be welcomed by all doctors who deal with children. It is warmly recommended.

H. G. CALDER, M.D.

PREIMPLANTATION STAGES OF PREGNANCY. Ciba Foundation Symposium, Edited by G.

E. W. Wolstenholme and Maeve O'Connor. Little, Brown and Company, Boston, 1965. \$13.50

The arrival of the Ciba Foundation Symposium brings to our attention crucial facets of pregnancy presently poorly understood. The symposium, which is of a quality now routine for the sponsors (CIBA), is under the able direction of G. E. W. Wolstenholme, Editor and C. H. Waddington as Chairman.

Necessarily these articles present only animal experiments. Electron microscopic studies on fertilization of the ovum and penetrance of the male zygote through the zona pellucida are described. Consideration is given to the mode of union of two zygotes and the nature of the forces responsible for incorporation of sperm into the oocyte. Studies of the dividing cells show no clear orientation of cells initially for a particular purpose. The importance of the perfusion fluid within the salpinx seems crucial to successive cleavage stages. At first glycogen is not utilized, energy being apparently derived from secretion of the Fallopian tube.

Perhaps as interesting as the information conveyed in this work is the route the investigators take to reach satisfactory answers. In mouse eggs the eight cell stage seems likely to be that in which organizing potential is seen, though implantation experiments suggest that organization potential is not seen at least up to the 16th stage. Several workers feel that histological observation does not exclude serious abnormalities to the developing blastocyst. Pincus discusses antiprogestins and discusses the role of such compounds in causing implantation inhibition, anti-progestin activity and uterotrophic effects as compared to a known compound, Estrone. This is a very stimulating discussion of the variations in the chemical structure of the steroid ring as related to these three facets of activity.

This work is of interest to those connected with basic science studies of reproductive physiology and morbidity. For interested clinicians it will bring a useful understanding of advances in research in their field.

JAMES W. MOLD, M.D.

CLINICAL MANAGEMENT OF BEHAVIOR DISORDERS IN CHILDREN by Harry Bakwin, M.D. and Ruth Morris Bakwin, M.D. Third

(Continued on Page 159)

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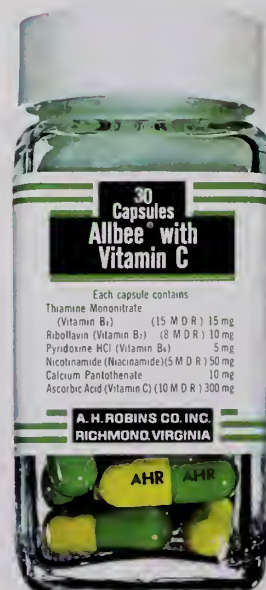
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BOOK REVIEWS

(Continued from Page 158)

Edition. W. B. Saunders Company, Philadelphia, 1966. \$14.50

This book involves a discussion of practically every conceivable behavior problem that one might ever encounter. Much of it is very basic and will appear new or remarkable only to the medical student or intern who has not been exposed to the problems of practice or has no children of his own. The sections on growth and development cover the same material as any other pediatric textbook, and it is not exactly astounding to discover that there may be emotional trauma associated with hospitalization or asthma or that children are interested in sex.

It is, however, comforting to learn that the answers one has come up with experience are generally the right ones, though I did find some rather large discrepancies between the Bakwins' practice and mine. For example, their patients are trained at 11 to 14 months, mine not until age two or even older. It is, admittedly, difficult to generalize about behavior problems, and the book does a rather good job providing guidelines for the handling of everything from hyperactivity to bowel problems to psychosis, and all way stops in between.

W. F. UTTER, M.D.

WHAT'S WRONG WITH YOUR LIFE INSURANCE by Norman F. Dacey. Collier Books, New York 1963. Paperback \$1.50

Insurance ignorance is practically universal. Mr. Dacey sets out to correct this ignorance with a persuasive documentation of the facts and methods of the American insurance industry and succeeds brilliantly in countering the presentations made by a host of insurance agents that have "sold" doctors.

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He has written a clear, forceful, and highly provocative analysis, easily understood by any doctor sufficiently interested to inform himself. It should be required reading for every physician before he buys another straight life or twenty payment life policy. A highly recommended clarification of an obfuscated subject.

JOHN F. W. GILMAN, M.D.



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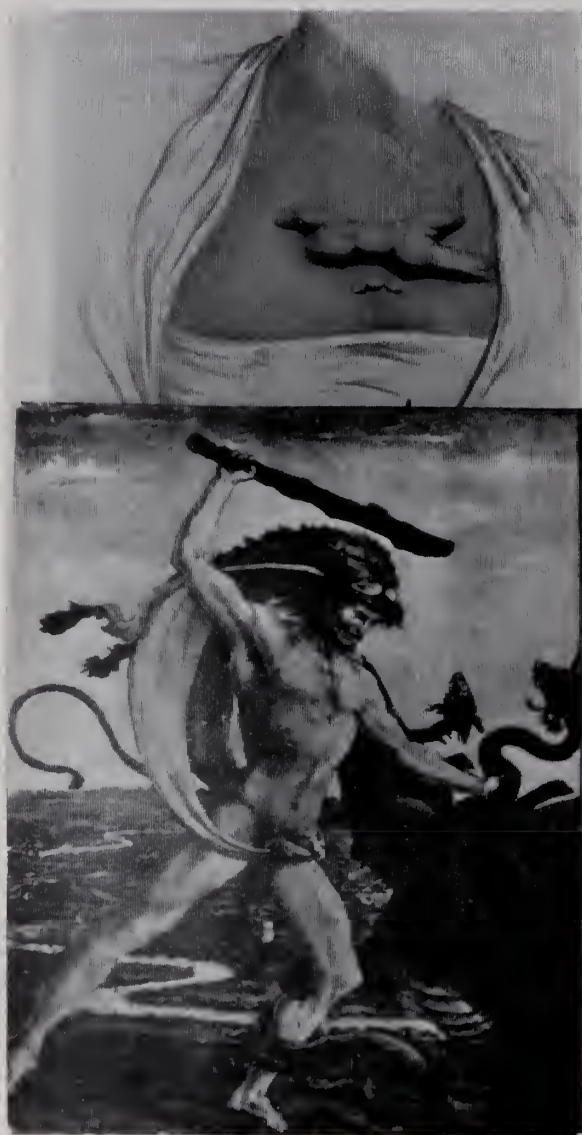
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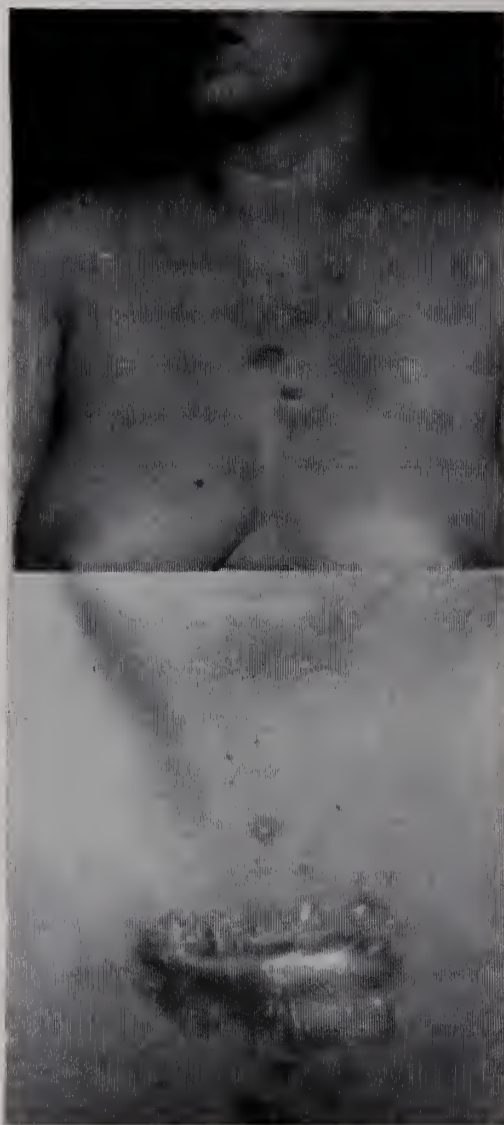
DERMA QUIZ

by FRANCESCO RONCHESE, M.D.



A French dermatologist, in 1816, compared the above chest tumor to the multiheaded mythologic serpent, depicted by Pollaiuolo, in which as soon as Hercules had destroyed one head, it was replaced by two others.

Answers on page 183.



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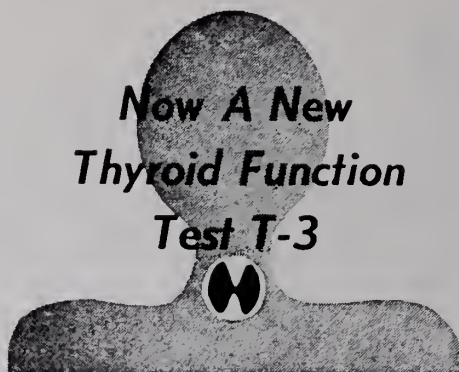
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1. Scholer, J. F.: J. Nuclear Med. 3:41, 1962. 2. Foeckler, F., et al., Paper, Meet. Soc. Nuclear Med., June 1962. 3. Sodde, B.: Paper, Meet. Soc. Nuclear Med., June 1962. 4. Nordyke, A. M., et al.: Paper, Meet. Soc. Nuclear Med., June 1962.

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References: 1. Batterman, R. C., and Grossman, A. J.: *Fed. Proc.* 14:316, 1955. 2. Goodman, L. S., and Gilman, A., ed.: *The Pharmacological Basis of Therapeutics*, ed. 3, New York, The Macmillan Company, 1965, p. 331. 3. Roth, J. L. A., et al.: *Gastroenterology* 44:146, 1963. 4. Conney, A. H., and Burns, J. J.: *J. Pharmacol. Exp. Ther.* 128:340, 1960. 5. Settel, E.: *Clin. Med.* 6:1373, 1959. 6. Berman, H. H., et al.: *Dis. Nerv. Syst.* 25:430, 1964. 7. Darienzo, C.: *Ibid.*, 27:189, 1966.

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PANEL DISCUSSION...

HIGHWAY TRAUMA: MEDICAL AND SURGICAL ASPECTS*

Injury to Various Systems Should Be Treated by Specialists,
But a Single Physician Should Be in Charge

FIORINDO A. SIMEONE, M.D., AMERICO A. SAVASTANO, M.D.
JULIUS STOLL, JR., M.D., ERNEST K. LANDSTEINER, M.D.
WARREN W. FRANCIS, M.D.

INTRODUCTION

FIORINDO A. SIMEONE, M.D., of Cleveland, Ohio
Professor of Surgery, Western Reserve University School of Medicine; Director of
Surgery, Cleveland Metropolitan General Hospital, and Associate Surgeon, University
and Highland View Hospitals, Cleveland, Ohio.

The program committee for this session of the annual meeting of the Rhode Island Medical Society is to be congratulated for having selected the subject of Medical and Surgical Aspects of Highway Trauma for panel discussion. It could not have found a more timely subject or one of greater practical importance.

While many well known diseases are disappearing, trauma has been progressively on the increase. In our highly industrialized society, trauma is with us as an important endemic disease, reaching epidemic proportions at times of long-weekend holidays and other disasters. Each year (Tables 1 and 2) some 45 million people are injured in accidents, involving a monetary loss of some 15 billions of dollars. In 1964, 9,500 individuals died as the result of accidents. Between the ages of one through thirty-four, accidents are by far the most common cause of death, leading the next most common cause, malignant neoplasm, by three and a half times (35.2 : 10.5 thousands annually). About half of the accidental deaths are attributable to motor vehicle accidents on the streets and highways.

In these days of concern for utilization of hospital beds, it is noteworthy that more beds are used for the treatment of patients who have had accidents than for any other kind of patient. Table 2). Nearly 20 million bed days were utilized in 1964 for patients injured in accidents, twice as many as for heart disease.

Some points of encouragement may be noted. As a matter of local pride may be cited the statis-

tic that the State of Rhode Island has the lowest death rate from automobile accidents in this country, namely 8.5 per 100,000 population, the national average being about 25 (Fig. 1). The death rate from motor vehicle accidents fell during the years of World War II and afterward. The low point was reached in 1961. Since that time there has been an increase in the death rate from slightly over 20 per 100,000 in 1961 to 25 per 100,000 in 1964. Much of this rise is due to the increased number of accidents. At least for large cities, the ratio of deaths to numbers of individuals injured in automobile accidents has shown a slight decline, 1.5 to 1.1 per cent in the City of Cleveland from 1960 to 1964 (Fig. 2).

While death rates are of obvious importance, the

Table 1. Observations on Accidents

1. Deaths from accidents each year	95000
2. Rank of occidnets among causes of death	
All ages	Fourth
Ages 1-34 years	First
3. Types of fatal accidents (% of total)	
Motor vehicles	40%
Falls	20
Fire or explosion	8
Drowning	5
Other	27

Table 2. Socio-economic Effects of Accidents

	Millions Annually
Individuals injured	45
Days of school lost	12
Days of work lost	84
Individuals receiving medical care	38
Individuals hospitalized	2
Hospital bed-days	20
Hospital beds required .....	.05
Approximate cost of accidents (in dollars) ..	15,000

(Continued on next page)

*Presented at the 155th Annual Scientific Assembly of the Rhode Island Medical Society, at Providence, Rhode Island, May 11, 1966.

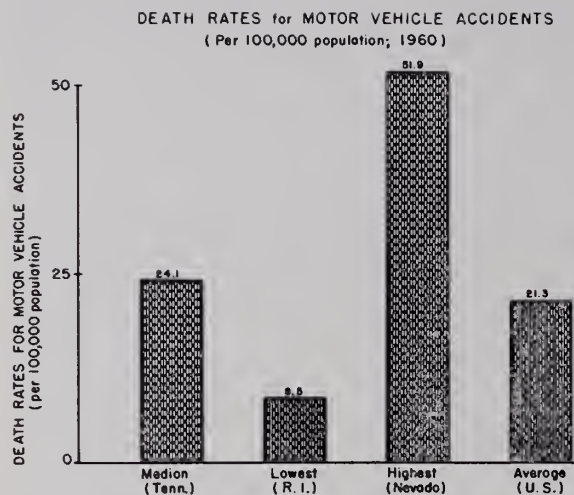


Fig. 1. Death rates from motor vehicle accidents (from Statistical Abstracts of the United States, 1962).

socio-economic effects of accidents short of being fatal are equally important. Among patients requiring chronic care because of visual impairment or because of paralysis, the conditions have resulted from accidents in about 15 per cent of the cases. Loss of limb has resulted from accidents in three-fourths of patients who have had major amputations.

It is interesting that in large cities, while the incidence of automobile accidents is on the increase, the mortality from such accidents appears to be decreasing (Fig. 2). One may speculate upon possible reasons for this. Among them would be the nearness of hospital installations to intra-city accidents. Improved methods for treating the severely injured may be another.

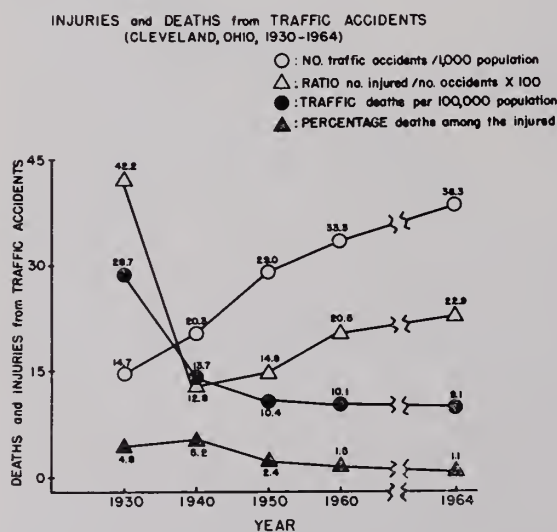


Fig. 2. Data on Traffic Accidents, City of Cleveland, Ohio. Note the absolute rise in the accident rate and the increase in the numbers injured in the accidents. However, the death rate among the injured has decreased (solid symbols).

What further can be done about the loss of life and the serious disability which result from accidents in general and traffic accidents in particular? Traffic and automotive engineers are devoting increasing attention to highway construction, traffic patterns, and automobile manufacture to lower the incidence and severity of injury from traffic accidents. These approaches to the problem deserve support from every possible source.

From the medical standpoint much can be done to decrease further the mortality and morbidity of traffic accidents. What is done at the scene of the accident can save a life or can place it in jeopardy. Undoubtedly, our panelists will touch on what to do and what not to do for first aid. Training programs for the police, firemen, and others are proving very helpful. In the past, additional injury has been caused by improper practices in the transportation of the injured. Education of the public in this regard is of paramount importance. The layman rather than the physician is usually the first at the scene of the accident. The panelists surely will have more to say about first-aid treatment and transportation of the injured.

Upon arrival at a hospital, the patient who has been in a serious accident is likely to be in shock. It is worthwhile commenting on the management of such a patient. Data from two World Wars clearly showed that in shock which follows trauma, the primary deficit is in circulating blood volume. The clinical degree of shock and the likelihood of renal complications are closely related to the extent of blood deficit.

Therefore, when a patient arrives at a hospital in shock the physician should assume that a significant oligemia exists and that the patient needs intravenous fluid for restoring circulating blood volume. The suspicion is strengthened by the observation that the veins selected for infusion are found collapsed rather than distended. Conditions which would contraindicate the intravenous administration of fluid ordinarily would not present with collapsed veins in the periphery. It is important to treat shock promptly and vigorously. Renal failure often results from delayed or ineffective therapy. The details of therapy will not be discussed now, but may become apparent during the course of this symposium.

Some general comments may be in order with regard to specific injuries. Among the deaths from automobile accidents twenty-five or thirty per cent are secondary to cranial-cerebral injury. Dr. Stoll will present to us the basic principles for decreasing this large mortality. A patient with intraperitoneal hemorrhage from rupture of the spleen may in fact die of acute subdural hematoma. Rupture of the urinary bladder may complicate fracture of the pelvis or other blunt abdominal trauma, and sometimes

escapes detection. A fatal outcome may be the result. Another frequently fatal condition if undiagnosed is retroperitoneal perforation of the duodenum. A case I described (Fig. 3) in which this condition complicated a head injury. One has to be constantly on the alert for multiplicity of injury. I recall very well a patient admitted to the hospital "in extremis" following an automobile accident in which he was thrown forcibly against the steering wheel. A fractured right diaphragm was repaired, followed by suture and drainage of rupture of the urinary bladder. He subsequently died of unrecognized rupture of the duodenum with general peritonitis. Many lives have been lost for failure to recognize the presence of injuries in addition to the obvious one.



Fig. 3. Plain roentgenogram of the abdomen in a patient with rupture of the second portion of the duodenum. Note obliteration of lower thirds of the right psoas shadow. Note also the curvature of the spine, concave toward the side of the lesion.

A special kind of injury may account for at least some of the loss of limb following accidents. I shall illustrate this by a case who incurred closed fracture of the femur. The affected leg was pulseless, cold, and mottled. It looked as though it would not survive. X-ray examination, including femoral arterial angiogram, revealed a displaced fracture of the femur with loss of continuity, or obstruction, of the femoral artery despite reduction of the fracture (Fig. 4). Amputation would have resulted if the obstructed artery had not been repaired. It is important not to delay the restoration of circulation, for once the affected tissues have suffered ischemic death, they no longer can be revived.

As already mentioned, the fate of the patient who has incurred a serious accident is often determined by what is done or not done at the scene of the accident and directly afterward. Dr. Savastano will now draw from his wide experience relating to orthopedic problems in trauma and will tell us something of the principles of early management.

(Continued on next page)



Fig. 4. X-Ray examinations of elderly patient with displaced fracture of the right femur (left panel). Angiogram (middle panel) shows obstructed femoral artery, at extreme top of picture, despite reduction of fracture. Panel on right shows femoral artery reconstructed by means of autogenous vein graft after resection of contused thrombosed artery.

I. CAUSES OF AUTOMOBILE ACCIDENTS AND MANAGEMENT OF ORTHOPEDIC PROBLEMS

AMERICO A. SAVASTANO, M.D., of Providence, R.I.

Surgeon-in-Chief, Department of Orthopedic Surgery and Fractures, Rhode Island Hospital, Providence, R.I.

I shall discuss some of the causes of highway accidents and some basic principles concerning the treatment of injuries, at the scene of the accident, in the Accident Room, and in the Operating Room, directed largely to the orthopedic phase of such treatment.

With reference to the causes of automobile injuries, alcohol is the greatest single factor. In a recent New York study 70 per cent of drivers in accidents had been drinking. In a national study, drinking drivers were involved in more than 50 per cent of the total fatal cases.

Various studies on alcohol blood levels as related to driving indicate that a 0.03 per cent blood level is enough to produce impaired driving. Insofar as laws in relation to alcohol content in the blood are concerned, a 0.05 alcohol blood level exonerates the driver in many states.

In relation to whiskey, it has been reasonably well established that 5 ounces of 70 proof whiskey produces a 0.05 per cent of blood level. Seven and a half ounces of 70 proof whiskey produces a 0.10 blood level, and 10 ounces of 70 proof whiskey produces a 0.15 blood level. Taking into account that a 0.03 per cent blood level is enough to produce impaired vision, it is evident what 5 ounces of whiskey will do to one's driving.

In addition to alcohol, other causes of auto injuries include impaired vision, impaired hearing, fatigue from overwork, drug ingestion, old-age infirmity, youth and lack of driving experience, and mental disorders.

Let us assume now that an accident has taken place. Why must we know something about the care of the patient at the scene of the accident? Any one of us may at any time encounter a horrible accident with people badly injured. We certainly would want to be able to render at least first aid in spite of our fear of legal involvement and the Good Samaritan problem.

Upon examining the patient we must first establish the quality of his pulse. We must determine whether or not he is breathing. If he is not breathing, we must establish whether he has failure of respiration or obstructed respiration. One possible cause of obstruction to respiration is mucus. Other causes include the swallowing of dental plates or the tongue; or there may be blood in the patient's throat. In cases where the patient is pulseless or not breathing, we must first establish an airway. It is much wiser to use a metal rather than a rubber

airway, as the clenching of the teeth may close a rubber airway. As soon as an air way has been inserted, artificial respiration may be started either by mouth-to-mouth resuscitation or by use of bellows if available. If the patient remains pulseless, cardiac massage should be instituted at 50 to 70 strokes per minute. If these measures fail, tracheostomy must be done.

If the patient is bleeding from wounds, pressure dressings are usually the best and safest method of controlling hemorrhage. A tourniquet is rarely necessary. If a tourniquet is used however, it must be applied firmly, as a loosely applied tourniquet will increase venous bleeding.

If the patient is in shock, he should be covered with blankets; but heat should not be applied. Morphine sulphate should be used for pain only. In shock morphine may not be absorbed; upon re-establishment of peripheral circulation, an overdose of morphine may be absorbed.

After preliminary care, special attention will then be given to any known fracture. The old adage "Splint them where they lie" is still valid. The patient must not be allowed to go about with his arms and legs hanging loosely. Splint the part suspected of being fractured before the patient is transported to a hospital. The arm and elbow may be splinted with a sling and swathe. The forearm, wrist, and hand may splinted with padded cardboard. Pillow and side splints or air splints will immobilize the knee, leg, and foot fractures very adequately. The thigh may be immobilized with a Keller-Blake hitch traction splint. If one suspects fractured ribs, allow the patient to sit up and use rib canvas binders or wide ace bandages. For suspected cervical spine injury, the patient should be transported face up. Sand bags or rolled blankets on each side of his head, face, and shoulders are also necessary. Do not turn the patient from side to side; transport him by ambulance.

Patients having thoracic or lumbar spine fractures should be transported in the supine position and only on a firm surface such as a wooden door or a shutter. If a wooden frame or door is not available, the patient may be transported in a sheet.

Once the patient has reached the Accident Room, his pulse, blood pressure, and breathing are again checked. If the indication exists, blood is drawn for typing and crossmatching. If the pulse is rapid and the pressure is low while waiting for the blood to be typed and crossmatched, one may use plasma

or Ringer's lactate solution to support the blood pressure or prevent it from dropping further. Ringer's lactate solution has proved to be superior to Levophed® or Aramine® in situations such as this. Tetanus antitoxin may be necessary; but in the average case, tetanus toxoid 0.5 or 1 ml. will suffice if the patient has had toxoid during the previous four years. If the wound is exceptionally dirty one may have to resort to human serum; and in an exceptional case one may be obliged to administer tetanus antitoxin.

In open wounds antibiotics should be administered. Broad spectrum antibiotics are most useful and should be started early. Inquiry concerning sensitivity of the patient to antibiotics is wise.

If the patient has multiple injuries involving several specialties, a "Take-charge Surgeon" should

be the overall responsible person in the case. The most serious injury should receive preferential attention.

Insofar as fractures are concerned, if the fracture is closed and undisplaced, a plaster cast will usually suffice. If the fracture is closed and displaced, it may be treated either by manipulation and plaster cast or by traction. If the fracture is open (compound), careful debridement of all devitalized tissues should be done within 8 to 12 hours of the accident.

If a fracture is open, the question of "To close or not to close" will arise. Primary closure should be done only under ideal conditions. Otherwise, it is better to do a debridement and a secondary closure after four to six days.

II. NEUROSURGICAL CONSIDERATIONS

JULIUS STOLL, JR., M.D., of Providence, R.I.

Surgeon-in-Chief, Department of Neurosurgery, Rhode Island Hospital, Providence,

Dr. Simeone has pointed out and emphasized the frequency of the injuries to the head and spinal cord in highway accidents. I shall not attempt to classify the various types of injuries. They are familiar to most of you. But I think that we should not minimize the importance of this classification. The person in charge of the case must first establish a working diagnosis, as far as the head injury is concerned. Having done this, he then establishes a certain prognosis and expected course. Should the patient not follow this course, then this should bring about a re-evaluation and, in some cases, the detection of a surgically treatable lesion. I emphasize this at the outset, because I think continuing observation, rather than a single consultation in the care of a head injury, is proper management.

Probably less than ten per cent of the hospitalized head injuries require surgical treatment. I should also like to say that, just because a patient is unconscious and has a head injury, one must not neglect the fact that the injuries may well be multiple. I think it is important, early in the management of such injury, to establish which injury is potentially the most dangerous. Then, I think the person best qualified to handle that type of injury should be in charge of the case. He must seek help from others. I think there is sometimes a danger in a team-effort in managing the patient, because one physician assumes that the other one is doing things; as, for example, in determining the amount of fluid to be given. Therefore, it is most important for one person to take charge.

There are several problems which we encounter which are worthy of mention. One is the simple scalp laceration without loss of consciousness. Many times during the year we will get a call from either

a house officer or some physician who has a patient who has received a blow on the head, has not been rendered unconscious, and has a small scalp laceration. The patient is sent on his way. When the x-ray plates are reviewed later we sometimes see a depressed skull fracture. There is a reason for that. At the time of the blow much of the force is spent in depressing the skull, so that the brain is spared, and there may not be a loss of consciousness. This type of injury does require further treatment and hospitalization, and so a word of caution concerning the importance of x-ray studies.

It is true that the clinical appearance of the patient is probably of prime importance, but I think all head injuries should have an x-ray examination. One of the reasons for this I have just mentioned. Another is that, if there is a fracture, it is an indication as to the intensity of the injury and should alert the person caring for the patient to the need for continued observation.

Any patient who sustains loss of consciousness deserves careful observation for the first twenty-four hours, not always in the hospital, but by some responsible person. The serious intracranial hematomas, which are so treatable but so lethal, if not recognized, may occur with a minimal loss of consciousness.

The presence of shock in a head injury must lead the examiner to look elsewhere. Shock rarely occurs in head injury *per se*, although it may be present if there is considerable blood loss from the scalp wound. However, in an unconscious patient, it is more difficult to make a diagnosis, so that the presence of shock should alert one to look elsewhere for its source.

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I should like to emphasize the point that Doctor Savastano brought out — the importance of looking for a fracture dislocation of the spine. If, in an unconscious patient with a head injury, I could take but one single film, I would prefer the lateral film of the cervical spine, because it is the fracture dislocation, without cord injury, that is so treatable. Once the cord injury has occurred, and this can occur in the patient even while transferring him to a bed, there is little that we can do about it. In the unconscious patient we can wait a few hours before detecting the fractured skull, but should not miss the fracture dislocation of the spine.

Let me now turn to intracranial hematoma; it is in this area that surgery can offer more than any other procedure. It may be due to arterial bleeding, and may occur without loss of consciousness. You are familiar with the danger sign of the dilated pupil. Certainly, this lethal lesion is curable, and must be constantly watched for.

Among diagnostic procedures, skull x-ray studies come first. There is a simple and reasonable way for detecting intracranial clot — that is, cerebral angiography. This may detect clots not in the usual position which would be missed by the ordinary burr hole.

Then, we have the radioactive mercury brain scan. This is also a useful device for detecting intracranial clots which may be amenable to surgery. Echoencephalography is simple and may be quickly used in the emergency room or in the wards to detect a shifting of intracranial contents and lead to early diagnosis.

I should now like to mention some of the more recent adjuncts to the treatment of head injuries. One, not really new but often of primary importance, is tracheotomy. This has been used much more frequently since World War II and should be immediately done in a head injury, when associated with a large degree of maxillo-facial injury, particularly when the naso-pharynx is the site of bleeding. It should be used in any patient in which an airway cannot be established by a simple means. I do not mean that it should be used indiscriminately in the non-serious cases, because it most

certainly is accompanied by some complications.

Hypothermia I believe has some use in the very severe head injuries. A review of the long-term results does not indicate that it has appreciably changed the outcome of very many head injuries. It is certainly true that, as the temperature drops, the cerebral spinal fluid pressure drops. It may also lessen the secretions in the airways and make breathing easier. I think it does have a role. We like to get the temperature down to between 90 and 92 degrees F. At this level, the incidence of myocardial complications is low.

There are two disadvantages to hypothermia. One is that it lessens the obvious neurological findings which one is following. It may thus lead to missing the diagnosis of a surgically treatable intracranial clot.

Secondly, it may mask the signs of infection — intra or extracranial.

As to steroids, we don't quite understand the mechanism of their usefulness in reducing the intracranial pressure, but certainly anyone dealing with head injuries realizes that steroids have been a very real contribution. One must, of course, protect the gastrointestinal tract by giving antacids and watching for bleeding.

Dehydrating solutions are helpful in severe head injuries. Even though they may reduce the brain swelling, however, the relief may be temporary.

CONCLUSION

The most important point in the management of head injuries is careful observation, because many of the intracranial clots are amenable to treatment when recognized.

Dr. Simeone: Thank you very much, Doctor Stoll. It may be useful to repeat one of the points which Dr. Stoll made, namely, that shock is rare in the casualty with intracranial injury. One might emphasize the converse of that too, namely that coma is a most uncommon and extremely late, actually terminal, sign of shock. The patient in wound shock who is stuporous or in coma very likely has intracranial injury, and we should look for it very carefully.

III. GENITOURINARY TRACT INJURIES

ERNEST K. LANDSTEINER, M.D., of Providence, R.I.

Surgeon-in-Chief, Department of Urology, Rhode Island Hospital Providence, R.I.

The genitourinary tract consisting as it does of the kidneys and ureters, and the bladder and urethra, is situated retroperitoneally and extends from the diaphragm and lower rib cage to the depths of the bony pelvis. Thus it is not often subjected to serious injury. However, when injuries do occur, treatment must be individualized for the component part that is injured, and the anatomy and physi-

ology of the various units must be understood for the exercise of sound surgical judgment.

A diagnosis of injury to the kidney must be considered when there is evidence of continued internal blood loss or persistent flank pain. Types of injury which should lead one to entertain the possibility of an associated renal injury include fractured lumbar spine, fractured transverse process of the lum-

bar spine, and suspected injury to the liver or spleen.

From 1950 to 1957 at the Rhode Island Hospital there were 50 cases of injury to the kidney, or about one in every 2,000 admissions. One-third of these were caused by automobile accidents, a group which accounted for one-half of the more severe injuries. During the subsequent 10 years the same hospital recorded 99 injuries to the genito-urinary tract, 77 of which involved the kidney. Of this series less than one-half of the 61 minor injuries were due to automobile accidents; of the 12 major injuries, eight were due to automobile accidents.

For purposes of diagnosis and treatment, injuries to the kidney are usually classified into three groups: First, contusion of the kidney in which there is no tear of the capsule or collecting system. Second, major contusion or laceration of the kidney in which the parenchyma is ruptured and the capsule may be torn. This is often associated with a large retroperitoneal hematoma, and there may be extravasation of urine as well. Finally, the most severe type of renal injury is rupture of the kidney which may involve the hilar blood vessels and the renal pelvis and in which fragmentation may be extensive.

As far as the diagnosis is concerned, pain in the flank is a common symptom and gross hematuria is almost never absent. On examination the patient will have tenderness and possibly a palpable mass in the flank, and signs of blood loss. X-ray examination of the abdomen may be helpful and may indicate a retroperitoneal hematoma. Early intravenous pyelography should be carried out whenever possible before the patient's condition has had an opportunity to deteriorate. These x-ray studies can be a source of helpful information not only concerning the condition of the damaged kidney but also concerning the presence and function of the other kidney. If, however, x-ray examination together with continued careful clinical observation are still insufficient to make an accurate diagnosis, cystoscopic examination and retrograde pyelography will usually accurately indicate the extent of the injury. Moreover, aortography may be useful in selected cases.

Treatment will depend on the type and extent of renal injury. Simple contusion usually requires little more than bedrest until the gross hematuria has stopped and for one week thereafter to avoid the possibility of secondary hemorrhage. In cases of major contusion, surgical intervention must be considered, and it is here that the accuracy of the diagnosis is particularly important. Clinical signs of persistent ileus and bleeding, an enlarging flank mass and elevation of the temperature indicate the necessity for further study, and retrograde pyelography may be advisable. If extensive urinary extra-

vasation is demonstrated, then operative intervention with drainage of the urine and removal of clots may save the kidney. This can safely be carried out several days after the injury in a properly prepared patient whose condition has become stabilized. Delay beyond this time may result in a long, morbid course, severe infection, and possible eventual loss of renal function. In cases of the third group, those with a severely ruptured kidney, early surgery may be indicated to prevent undue or fatal blood loss, particularly when the renal pedicle has been injured. Surgery here often consists of nephrectomy. Finally, if a renal injury exists in combination with other abdominal injuries which also demand exploration, the retroperitoneal space on the affected side should be opened for evacuation of any hematoma and repair of the kidney.

End results of simple contusions of the kidney are usually very satisfactory, and intravenous urograms usually show a normal kidney several weeks after injury. In the more severe injuries, the end result may be severe scarring, contracture, or chronic pyelonephritis. Late development of hypertension may result from peri-renal scarring. These patients should be observed over a long period because eventual nephrectomy may be indicated.

Turning now to the remainder of the urinary tract, we found that ureteral injuries do not commonly occur as the result of automobile accidents. However, in cases of fracture of the bony pelvis, injury to the bladder and urethra is common and must be carefully searched for. Automobile accidents are directly responsible for the majority of such injuries due to external violence.

Rupture of the bladder may be intraperitoneal or extraperitoneal, the latter being more frequent. The symptoms consist of lower abdominal pain, urgency and gross hematuria, although often these patients are unable to void or have severe dysuria. Varying degrees of abdominal tenderness and muscle spasm, as well as ileus, may be present. Extravasation of contrast material, as seen on an intravenous pyelogram, may be diagnostic; however, negative findings on such an examination can also occur and be misleading; in which case the diagnosis is confirmed by performing a retrograde cystogram. Two hundred cubic centimeters of contrast material are introduced into the bladder by gravity, and extravasation is searched for. In extensive extraperitoneal rupture, a typical "sunburst" appearance is evident.

Treatment consists of cystotomy, closure of the rent in the bladder and postoperative drainage. End results are usually excellent, but morbidity and mortality are directly related to delay in definitive operative treatment.

Fractures of the bony pelvis may also be com-

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plicated by complete severance of the urethra at the prostatic apex. These patients are usually unable to void but may have blood running freely from the urethra. Examination reveals a distended bladder, and on rectal palpation one finds the prostate replaced by a soft, fluctuant hematoma. Attempts to pass a catheter are usually unsuccessful, and injection of contrast material will demonstrate extravasation.

Treatment consists of prompt operative repair, the most important aspect of which is close approximation of the severed ends of the urethra to prevent stricture formation. This is usually best done

over a splinting balloon catheter placed on gentle traction combined with cystotomy and postoperative drainage. The end results are usually good, although many of these patients will require periodic urethral dilations.

Dr. Simeone: Thank you, Doctor Landsteiner. It may be well to underline for emphasis the last condition that Dr. Landsteiner described. I refer to injury of the urethra above the triangular ligament in fractures of the pelvis. I know of few lesions which make for more morbidity and subsequent disability than the improper management of the disrupted urethra in such cases.

IV. AUTO ACCIDENTS AND ABDOMINAL TRAUMA

WARREN W. FRANCIS, M.D., of Providence, R.I.

Associate Surgeon, Department of Surgery, Rhode Island Hospital, Providence, R.I.

Abdominal injuries from auto accidents are frequently seen in the active Accident Room of the Rhode Island Hospital. The screening of these patients to determine which require admission for observation or immediate operation presents a difficult problem. The acute shortage of hospital beds has further compounded the difficulty.

To discuss all facets of abdominal injuries in a short time is impractical. I shall try to mention a few basic principles, some of the newer surgical procedures, and raise a few controversial points.

Repeated examination of the patient is essential. Only in that way can changing signs be correctly interpreted (Fig. 1).

When serious abdominal injury is suspected a cutdown or percutaneous venous catheter should be inserted in an upper extremity (Fig. 2). Theoretically, major venous injury may be present, and if blood is given in the leg it may be lost before reaching the heart. The use of Ringer's lactate

solution for emergency use has been adopted by many and is given until blood becomes available.

Early insertion of a nasogastric tube to empty the stomach is very helpful (Fig. 3). A dilated stomach may give signs which are easily confused with those of intraperitoneal bleeding or ruptured viscus. Children specially seem to respond to varied trauma with rapid gastric dilatation.

Insertion of a catheter into the bladder eliminates the possibility of an acutely dilated bladder causing abnormal abdominal signs, gives the surgeon a chance to determine the presence or absence of blood in the urine, and allows easy monitoring of urine output during a period of observation or postoperatively (Fig. 4).

Diagnostic abdominal taps, especially in the unconscious patient, may be of great help (Fig. 5). A tap positive for blood is felt to be a positive indication for exploration. A negative tap is of little

BASIC PRINCIPLE —

Repeated Examinations of the Patient

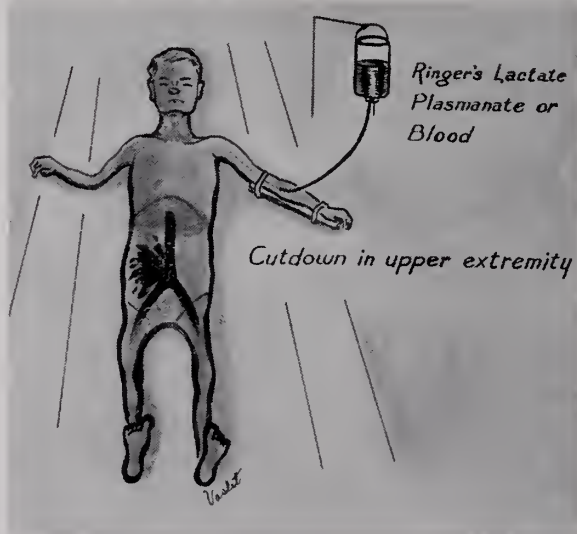


Fig. 1

Fig. 2

Use nasogastric tube to decompress the stomach

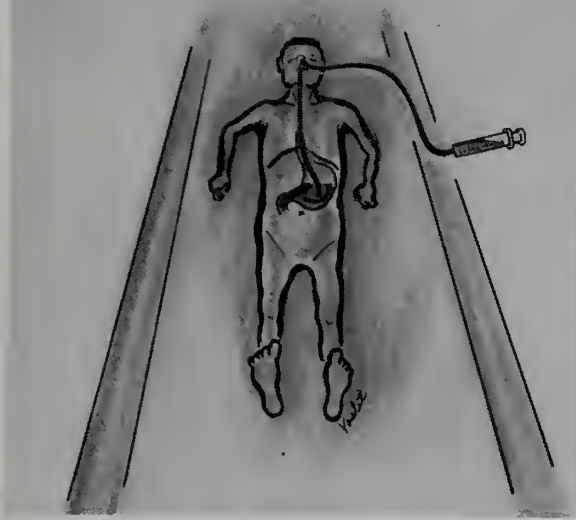


Fig. 3

Indwelling Catheter to empty bladder and monitor urine output



Fig. 4

value. Using a No. 18 spinal needle, aspiration in the left lower quadrant lateral to the rectus muscle is first attempted. Taps in the other three quadrants have been recommended by some. There is little danger even if the bowel is inadvertently entered. *Never* be influenced by a negative tap, however, when other indications for operation are present.

Injuries to the pancreas are relatively uncommon, and control of hemorrhage along with ade-

quate drainage is usually sufficient (Fig. 6). However, sometimes transection of the pancreas occurs and resection of the distal segment is the operation of choice. Various pancreatico-intestinal anastomoses have been recommended but resection is safer. Associated vascular injuries are common in these patients.

Liver trauma can be a nightmare (Fig. 7). Control of early and late hemorrhage may be impossible without hepatic lobectomy in some cases. All surgeons should periodically review the technique, remembering that thoraco-abdominal exposure is usually required, and check the anatomy of the hepatic veins, which most of us seldom see. When dealing with any liver injury, intermittent clamping of the porta hepatis may temporarily control hemorrhage. Packing is only of historical interest be-

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Diagnostic Abdominal Tap — only positive findings are of significance

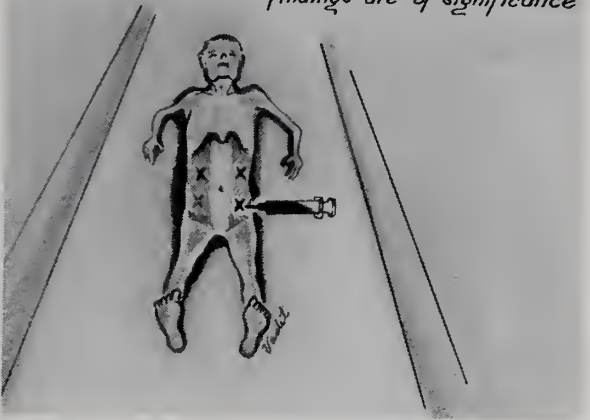


Fig. 5

Partial Pancreatic Resection for some injuries

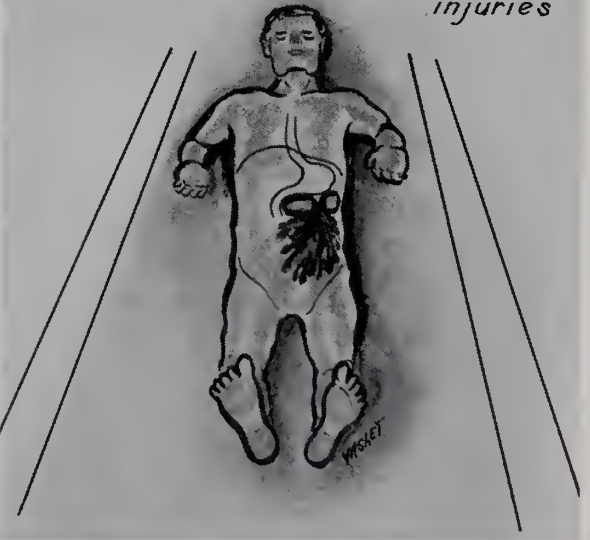


Fig. 6

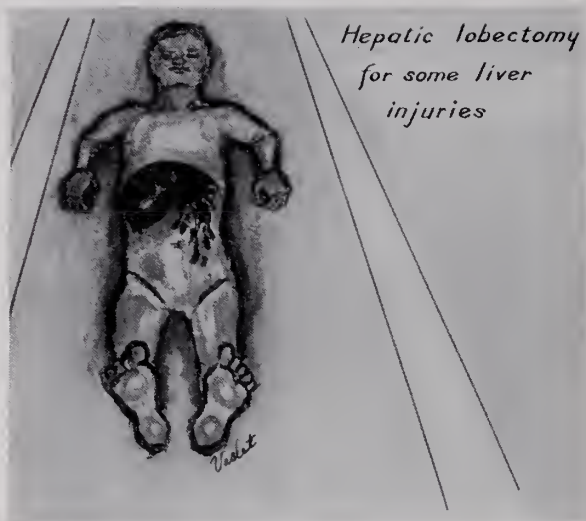


Fig. 7

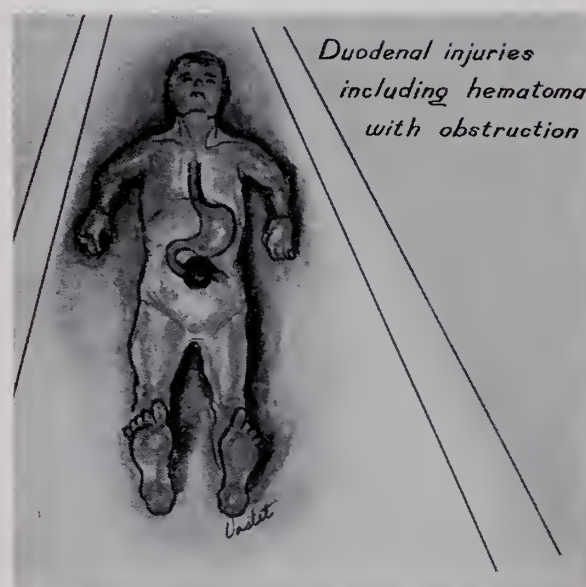


Fig. 8

cause of the high incidence of secondary hemorrhage and infection. Gelfoam or similar material should not be buried inside the hepatic substance. Common duct drainage may decrease the chance of intraperitoneal drainage of bile from the injured liver. All liver injuries should be drained.

Duodenal injuries are easily missed (Fig. 8). Intramural hematomata can cause duodenal obstruction. Some recommend evacuation of the hematoma. Gastrostomy and jejunostomy with or without a by-pass procedure are indicated.

I might mention here that temporary gastrostomy has been a great help to us in eliminating the need for a nasogastric tube postoperatively in all types of surgery.

Occasionally tearing of the mesenteric vessels may be the cause of intraperitoneal hemorrhage.

(Fig. 9). Where the injury is extensive requiring ligation of several vessels, intestinal resection may be the safer procedure.

When one finds only a large retroperitoneal hematoma at operation the teaching in the past has been to leave it alone and if it is not expanding it will be confined to that space and stop (Fig. 10). Recently, it has been recommended that all of these

Consider bowel resection in Mesenteric Injuries



Fig. 9

*Explore all retroperitoneal hematoma
???*

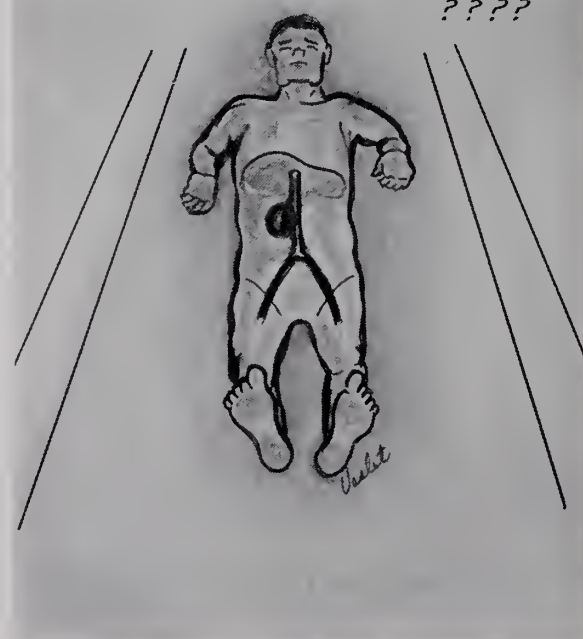


Fig. 10

be explored, since if you don't some will die from unrecognized major vessel injuries. Vena caval and other vascular injuries can be controlled by repair or ligation. Now that vascular surgical techniques are included in most surgical residencies, I feel that

these hematomata should be explored if the surgeon is capable of coping with whatever he may find.

In conclusion, I wish to emphasize that repeated examination of the patient, preferably by the same surgeon, is the most important point I can hope to leave with you.

DISCUSSION

Dr. Simeone: Thank you, Dr. Francis, for tying everything up so nicely for us.

Dr. Francis mentioned the importance of continued examination of the patient. When a casualty is brought into the Emergency Room the decision must be made as to whether to send the patient home because he has nothing wrong with him, or to keep him and admit him either for emergency treatment or for observation. Only too often patients are admitted for observation, but are not observed or seen again until late the following morning. This is not entirely in keeping with good logic, because if a patient is going to be kept for observation, then he shouldn't be left unobserved. He might as well have been sent home. So I emphasize the importance of really observing any patient admitted for observation. Furthermore, it is well to be conservative and to admit for observation on the slightest suspicion, for some of the most lethal lesions are not immediately apparent when the patient is first seen.

We now have some questions from the audience. One is to give the symptoms in order of importance of rupture of the duodenum. I assume that this refers to extraperitoneal rupture, because the diagnosis of intraperitoneal rupture does not ordinarily present a problem. Retroperitoneal rupture, however, is difficult because, early after injury, physical finding may not be striking.

As far as symptoms go, the important features are severe abdominal and right flank pain. The patient looks all right and may show no evidence of injury on the abdomen; yet he keeps insisting that he has terrible abdominal and flank pain. Shortly afterward, on the very first day, a high fever develops, the temperature rising to 39 and 40 degrees centigrade, for example. Pain and fever in other words are the important clinical features of this condition.

The diagnosis can be substantiated by careful perusal of the plain abdominal film; sometimes the right psoas shadow is obliterated; but sometimes gas escapes from the duodenum and collects along the psoas margin making it ever so much more prominent than on the normal side.

A question is asked: "If blood is not available, in a patient with traumatic shock, what drugs do you use?"

Well, if blood is not available, the use of fluids other than blood would be preferable to the administration of vasoactive drugs. The next best solution for infusion logically would be plasma. The difficulty with it concerns the risk of developing hepatitis. Hopefully, in the not too distant future, this no longer will be a problem.

The most convenient solution to use is lactated Ringer's, as shown by Dr. Francis in his slides. According to Shires there may be in shock from hemorrhage and trauma, a re-allocation of water and electrolytes in the body to the extent that in severe hemorrhagic shock in man as much as 20 per cent of the body water may be translocated. Just where it goes is not clear, but it is not in the circulation. So that when blood is not available, and even if blood is available, the first thing I would put into the vein is a needle, or a cannula carrying lactated Ringer's solution, at the same time watching the rapidity with which the fluid flows in or fails to flow in. In this way, one can make a pretty reasonable judgment as to the venous pressure. Then, once that infusion is under way, I would turn to blood. If blood still is not available, dextran may be used, up to about one liter of it, or one third of the estimated blood volume deficit.

I emphasize again what the previous speakers have said, that one doesn't want to neglect the other features of the patient. There is no point in getting a transfusion started and paying no attention to the fact that the patient can't breathe. One must be sure that the cardio-respiratory system is capable of functioning before you proceed very far with putting things into the circulatory system.

As to the use of specific drugs, and there are other questions on this subject, one may first consider such drugs as metaraminol and 1-norepinephrine. Much is said about using these drugs in such small amounts as not to increase peripheral vascular resistance. However, in practice, along with some cardiogenic action, peripheral vasoconstriction is produced at least in some vascular beds, and in these beds, therefore, the circulation becomes worse despite the fact that the blood pressure may be improved. We must pay more attention to capillary blood flow than to systemic blood pressure.

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Now, having said this, let me make another point which may guide us. Although the only usefulness of blood pressure is to drive blood through a capillary loop, we must realize that if the blood pressure is zero, no blood will flow through the loops, no matter how much blood you put into the venous circulation. In other words, some blood pressure, or head of pressure, is essential for flow in the capillary circulation. How much blood pressure is needed? In general, it takes a mean pressure of 50 mm. of mercury to perfuse the microcirculation of the skin. So that theoretically, if the patient has a pressure below that it won't do too much harm to treat him with drugs such as metaraminol and 1-norepinephrine, because you can't make things worse than they are, and you might conceivably, and theoretically, make things better by shunting blood into the circulation of the heart and brain. Drugs which cause vasodilation can be useful under certain very special conditions of high central venous pressure. Because of dangers involved in their use, these drugs are still experimental.

The physician must remember that the fundamental defect in the shock which follows severe injury is a deficit in blood volume. When correction of oligemia does not result in satisfactory resuscitation, the first questions should be: "What are we missing? Are we really restoring normovolemia? Is there a complicating tension pneumothorax, massive atelectasis, a foreign body in the trachea, overwhelming infection, continued bleeding, or other condition?"

I have a question here pertaining to immunization against lockjaw or tetanus. I have asked Dr. Francis to talk about this, and perhaps, also, the other Panelists would like to comment.

Dr. Francis: The question is: With the realization that there are more deaths in the United States and Canada from tetanus antitoxin than from tetanus itself, do you still believe that tetanus antitoxin should be used when human tetanus antitoxin is not available?

I don't think I ever believed it should be used when human tetanus antitoxin is not available, because I have strong feelings about tetanus antitoxin; using it sparingly, I have seen severe serum sickness from it, requiring hospitalization and steroid therapy.

I would suggest, first, that the treatment of tetanus or the prophylaxis of tetanus has to do with wound care. You have to get rid of the dead tissue and have adequate treatment of the wound itself. Then, if human globulin is not available, I would use massive doses of antibiotics, such as penicillin tetracycline, given over at least a ten-day period.

I would reserve the use of tetanus antitoxin for the treatment of a case of tetanus that did not have prophylaxis. That may be controversial, I know.

Dr. Savastano: I think that by and large, Dr. Francis' remarks are true, but in some orthopedic cases with multiple, extremely severe, open wounds of the muscles, possibly filled with debris or clots, if human serum were not available, I would be inclined to take a chance on using tetanus antitoxin. I would give not 1,000 units, but anywhere from 3,000 to 6,000 units, after proper testing.

Dr. Stoll: I want to add that ever since Dr. Francis H. Chafee pointed out to me the number of deaths from the use of antitoxin, we have not used it on the Neurosurgical Service.

Dr. Simeone: This, actually, is an interesting problem; unfortunately, human globulin is not available at this time, because it is all going to Vietnam. But, when it does become available, it will do away with this difficult question. The whole problem is complex. First, serious reactions to the horse-serum do occur; and, second, the evidence that the use of horse-serum tetanus antitoxin has really cut down the incidence of tetanus following dirty wounds is not very clear-cut.

As you know, the evidence for it was obtained from the First World War, observing that after the introduction of the use of this agent, the incidence of tetanus in the American and British Armies dropped strikingly. However, everything else dropped strikingly, too. Indeed, as in any war, everything improves, as everybody acquires experience. We cannot really attribute improvement in tetanus to the antitoxins in the dosages advocated.

However, I think we may be guided by the view of the Trauma Committee of the American College of Surgeons. In extreme situations, in the case of a wound badly contaminated by something such as chicken manure, which is almost certain to result in tetanus, and without previous immunization, I would go all out to prevent tetanus and, in addition to the procedures mentioned, would use antitoxin in high doses, including the horse-serum preparation if the human antitoxin is not available.

There is one other problem that should be discussed, and then I think our time will be just about up. The time-honored position in which to put the patient who has had an accident and goes into shock is the Trendelenburg position. There is recent evidence that in this position, despite the fact that the outward signs may initially appear to improve, the rate of blood flow through the brain may actually decrease. I should like to ask the Panel if they have any recommendations regarding the position in which they would place a patient who has had a serious automobile accident, a major

fracture, pelvic fracture, and so on? Dr. Francis would you like to comment?

Dr. Francis: I think the proper position would vary, depending upon the major injury to the patient. A patient with fractured ribs probably ought to sit up. One with arterial insufficiency in the leg probably should have the leg down a little bit. I don't think it is a question to which one can give an unequivocal answer.

Dr. Savastano: I would emphasize the view expressed by Dr. Francis; insofar as the lower extremities are concerned, proper vascular drainage is desirable, so that we would be inclined to elevate the lower extremities to some degree in order to avoid swelling.

As far as the upper extremities are concerned, we probably would find a way of placing the arm up so that it would be elevated, or perhaps in such a way that the fingers pointed to the ceiling.

Dr. Stoll: I think you have to be guided by the other injuries present. In certain injuries, we would prefer to have the patient on the side or semi-prone, simply to help maintain the airway and promote respiration.

Dr. Landsteiner: In cases of ruptured urethra, the pelvis is usually fractured, and as often happens in the fractured pelvis, the lower extremities may also be fractured.

There are two methods of approach, suprapubic and perineal. There may be contraindications to the latter. In the suprapubic approach the patient may lie flat to be operated upon. Repair of the torn ends of the urethra can be accomplished by bringing them into opposition and splinting over a balloon catheter placed on gentle traction, thus avoiding sutures. This is probably a much better method for patients in traction for fractures, causing less trauma.

Dr. Simeone: I think the group has rather agreed that certainly the nature of the injury is important for determining the position of your patient in bed. However, when we are tempted to improve the patient's blood pressure and circulation by employing the so-called Trendelenburg position, we should bear in mind that what we are trying to do is to utilize his available circulating blood volume to the best advantage. In the Trendelenburg position, the legs are emptied of blood; the veins are emptied of any large volume, at least. This blood passes into the large veins of the trunk, and on to the right side of the heart by slightly elevating the trunk. However, with reference to the head, we would certainly go along with what Dr. Stoll has said, essentially, that we would prefer not to have

the head down, in line with the trunk and legs, but rather elevated in a comfortable position, which has been shown to promote cerebral circulation.

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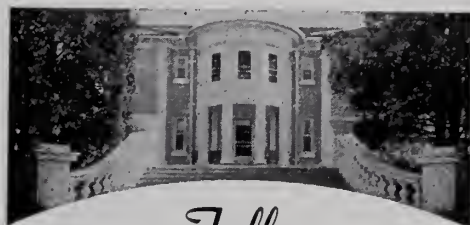
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ONE SENTENCE ESSAY

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... Max Levin, M.D., in *The Prognosis of a Marriage*, from CMD of Dec. 1966

RUPTURE OF RECTUS ABDOMINIS MUSCLE

Should Be Considered in Diagnosis of Acute Abdomen; Trauma May Be Trivial

CHARLES L. FARRELL, M.D. and MAURICIO GOLDBERG, M.D.

The Authors. Charles L. Farrell, M.D., and Mauricio Goldberg, M.D., of Narragansett, Rhode Island. Members of Staff, South County Hospital.

We are reporting two cases of ruptured rectus abdominis muscle to call attention to the fact that this condition may appear where the existing trauma is so trivial that it is unrecognized as a causative factor. Consequently a rupture of the rectus muscle is not always considered in the differential diagnosis of the acute abdomen. Because of the extensive hemorrhage encountered in these cases, particularly in view of the trivial nature of the exciting cause, we were impelled to review the literature and examine the experience of the other hospitals in this state. Eliminating pregnancy and its complications, as well as gross trauma (including military and naval service), we were able to locate only two other cases of ruptured rectus muscle due to minor trauma in the record libraries of the general hospitals in Rhode Island.

This condition, while not common, certainly is not rare. It has been described by Galen and Hippocrates.⁹ In many cases there is no predisposing cause.⁷ Teske⁹ found more than half of his cases in this group. Richardson² reported the first case in the American literature in 1857. In Germany Maydl⁸ in 1882 made the first comprehensive survey of the literature. Wohlgemuth's series⁴ of 127 cases included 100 in young adult males following violence.

The clinical picture can mimic every intra-abdominal condition. It has been diagnosed as appendicitis, ruptured tubal pregnancy, ovarian cyst with twisted pedicle, volvulus, intussusception, perforated peptic ulcer, and acute cholecystitis. Schafer⁶ reports that only 22 of 101 cases were correctly diagnosed prior to surgery.

Pregnancy and direct violence are understandably recognized as causes of rectus rupture, but blood dyscrasias and infectious diseases are less readily considered as predisposing causes.⁵ Nevertheless Hartmann¹ noted that it occurred after attacks of typhoid. It is not generally appreciated that simple coughing can produce rupture, as occurred in one of our cases.

CASE REPORTS

Case No. 5517. E.L., a 51-year-old female, was admitted to South County Hospital 11/1/65 with

the complaint of right lower quadrant pain of three days duration. Four children were living and well. Past history revealed childhood exanthemata, appendectomy, and, a few years ago, a total hysterectomy. She had been in good health recently except for a slight cough which was mild and non-productive. Upon retiring three nights before admission she coughed as she was getting into bed. This was not violent and occasioned no particular notice at the time. Only on repeated questioning (post operatively) was this episode ascribed as the cause of rectus rupture. The patient slept well that night and had no distress until the next morning when she noticed a dull ache and soreness in the right lower quadrant of her abdomen. This continued to worsen; and the increasing pain on motion, plus a markedly tender area in the right groin, caused her to seek medical attention.

Physical examination showed a moderately well developed female not acutely ill. Pulse 78. Temperature 99. Examination was negative except for the abdomen, which showed a marked rigidity throughout, but most marked in the right lower quadrant, where a small ovoid mass measuring about 2.5 by 6.5 cm. was located near the groin. This mass seemed to be just under the skin in the subcutaneous tissues. There was no skin discoloration present at this time. Abdomen also showed a mid-line scar of previous hysterectomy. A barium enema and gastrointestinal x-ray series were also negative. Exploratory surgery was decided on.

In preparing the abdomen for surgery it was noted that an area of ecchymosis had developed over the lower right half of the abdomen extending from the rectus muscle to Poupart's ligament and inferiorly to the superior half of the labia majora. A low paramedian incision through skin and fascia revealed a transverse tear of the lower third of the right rectus muscle with a large amount of clotted blood. There was no active bleeding. The muscle tear was repaired, the clots evacuated, and incision closed with drainage. The patient made a slow but satisfactory recovery, although there was considerable exudate from the wound for several days. During her hospital stay the temperature range was 99° to 100°, and white count was 9,500. She was discharged well on the 24th hospital day.

(Continued on Page 183)

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(Amantadine HCl)

The first oral chemical virostat for the prevention of influenza A₂



Influenza virus

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the core of nucleic
acid (RNA)—artist's
representation*

The incidence of influenza A₂. In this country, where influenza is one of the leading causes of morbidity, influenza A₂ (Asian) continues to be a serious medical problem. In 1957 influenza A₂ was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A₂ (Asian).

What is Symmetrel[®]? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A₂ (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presentation

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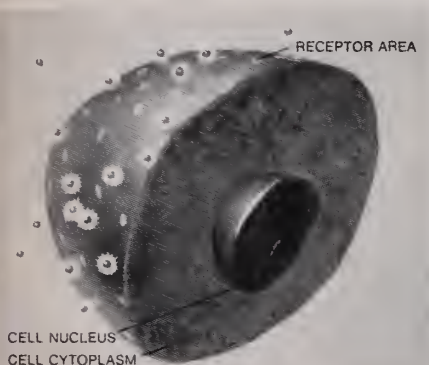
- ...the first and only oral chemical agent to prevent influenza A₂ (Asian).
- ...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.
- ...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.
- ...specifically active against all influenza A₂ viruses tested to date.
- ...not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.
- ...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

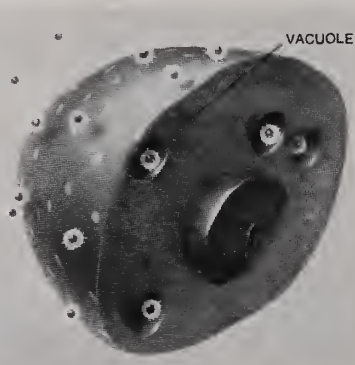
- ...possible immediate influenza A₂ protection when taken following suspected contact.
- ...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A₂ is especially hazardous.
- ...a high degree of safety in clinical use.
- ...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

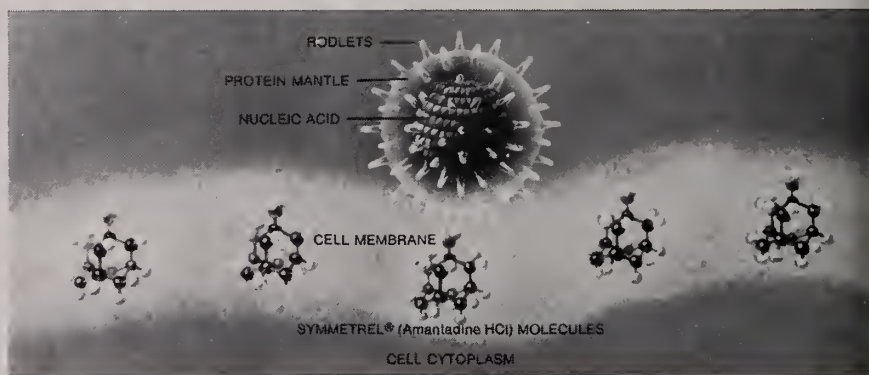
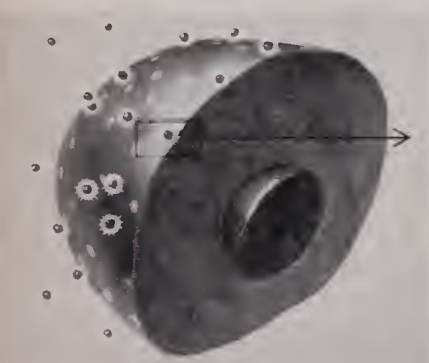


2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion¹



Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

1. "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Haff, R. F.; and Goldsby, R. A., *Journal of Bacteriology* 90,623 (1965).

Safety of Symmetrel® Confirmed. When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

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Indications: "Symmetrel" is indicated for the prevention (prophylaxis) of influenza A₂ in persons of all age groups. Early use is recommended, preferably before or as soon as possible after actual or suspected contact with individuals suffering from influenza A₂. "Symmetrel" should especially be considered for high influenza-risk patient groups such as those suffering from chronic debilitating diseases and elderly persons.

Contraindications: Not indicated for the prevention of influenzal or respiratory illness other than influenza A₂ or for the treatment of established disease.

Warnings: Administration to patients with central nervous system disease, particularly geriatric patients with cerebral arteriosclerosis, and patients with a history of epilepsy or other "seizures," requires strict observation for possible untoward effects (see Adverse Reactions). Patients taking psychopharmacologic drugs, central nervous system stimulants, or alcoholic beverages should be observed for possible evidence of intolerance. Those patients who experience central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important.

No teratogenic effects have been seen in reproductive studies in rats and rabbits. Studies in pregnant women have, however, not been done and use of this drug in women of childbearing age should be undertaken only after weighing the possible risks to the fetus against benefit to the pregnant patient. It should not be administered to nursing mothers since it is not known whether the drug is secreted in the milk.

Precautions: Ineffective against bacterial infections. Patients should be observed for idiosyncratic reactions as with all new drugs. Geriatric patients with pre-existing serious medical illnesses with mental or physical deterioration should be followed carefully medically while taking "Symmetrel." (See Adverse Reactions.)

Adverse Reactions: With higher than indicated doses manifestations of central nervous system effects such

as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: *Adults:* Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: *Capsules:* Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.

Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.



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Intragastric photograph of pyloric region showing complete relaxation of pyloric sphincter with 6 mg. of Pro-Banthine intravenously.

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Barowsky and his associates demonstrated that a minimal dose of 6 to 8 mg. of Pro-Banthine intravenously produced complete relaxation of gastric activity. Secondary effects were not significant.

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Contraindications: In glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in the elderly male with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug.

Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

1. Barowsky, H.; Greene, L.; Bennett, R., and Buganza, G.: The Effect of Anticholinergic Drugs on Gastric Motility and Pyloric Function, Scientific Exhibit, Annual Convention of the American Medical Association, Chicago, Illinois, June 26-30, 1966.

When the battle with bacteria is in the upper respiratory tract

Routes of invasion through the oral and nasal passages to the nasopharyngeal mucosa: artist's depiction of sagittal section of head in perspective.



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Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first three months of life.

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Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

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RUPTURE OF RECTUS ABDOMINIS MUSCLE

(Continued from Page 182)

Case No. 4566. J.P., a 41-year-old male workman, was admitted to the South County Hospital 7/17/65 with the complaint of a tender mass in the right lower quadrant of his abdomen of a few days duration. No history of trauma could be obtained. His past history disclosed repeated attacks of peptic ulcer disease for which he had a vagotomy and pyloroplasty three months previously. He was about to return to work when he noticed a slight swelling in the right lower quadrant of the abdomen. He was admitted for observation and study. A barium enema and intravenous pyelogram were negative, but showed arteriosclerosis of the lower abdominal aorta.

Examination of the abdomen revealed a recent mid-line surgical scar. The abdomen was firm and tender on the right side, and there was a suggestion of a mass rather firmly adherent to subcutaneous tissue. Rectal examination and the balance of physical examination were negative.

At exploratory operation active bleeding from the interior epigastric artery was encountered. A large hematoma measuring 12-15 cm. in largest diameter was evacuated. Bleeding was controlled. Right rectus muscle tear was repaired, and a Penrose drain inserted. Discharged recovered on the 15th hospital day.

COMMENT

Broedel⁸ has minutely described the anatomy of the rectus muscle, the main vessels of which lie in a shallow groove on its dorsal surface. In this situation they are spared the undue stretching involved in muscular activity. He suggested that hyaline degeneration of the muscle (Zenker's degeneration) seen in typhoid fever and influenza and also in mild infections may be followed by stasis, agglutination, and minute thrombosis. If the degeneration is considerable, the unaffected part of the muscle may tear the weakened portion and its veins or arteries.

It is also significant that the posterior sheath is not adherent to the muscle and ends at the semi-circular line of Douglas, thus leaving the lower half of the muscle exposed, with the inferior epigastric artery free on the ventral surface. A hematoma in the area would cause pressure on the peritoneum and give symptoms of intra-abdominal pathology.

In Schafer's series the youngest case was 4 years old and the oldest 84 years.

SUMMARY

We have reported two cases of ruptured rectus abdominis muscle from trivial and practically unrecognized trauma. The condition is not common,

but by no means rare. Symptoms and signs can resemble any intra-abdominal pathology. Prognosis is generally favorable. Surgery is effective, but in some instances medical care may be adequate. The reported cases indicate the desirability of including this condition in the differential diagnosis of the acute abdomen.

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DERMAQUIZ ANSWER

(See Page 160)

The French dermatologist is Alibert, who coined the term KELOID.

The hands off advice refers specifically to the STERNAL KELOID.

DISAPPEARING MOSAICISM

Suggested Mechanism Is Growth Advantage of Normal Over Abnormal Cell Population

PAUL H. LA MARCHE, M.D., ALICE B. HEISLER, M.D.
NORTON S. KRONEMER, M.D.

The Authors. *Paul H. La Marche, M.D., Director, Child Development Center, Rhode Island Hospital; Alice B. Heisler, M.D., Pediatric Resident Fellow in Genetics, Rhode Island Hospital; Norton S. Kronemer, M.D., Pediatrician, U.S. Naval Hospital, Quonset Air Station, Quonset Point, R.I.*

Trisomy 17-18 syndrome, first described by Edwards and coworkers in 1960,¹ is characterized by clinical features somewhat variable from case to case. Taubert, et al.² reviewed the literature and listed the most common findings of this syndrome, which include low-set malformed ears, receding chin, flexed fingers, intraventricular septal defect, failure to thrive, mental retardation, and increased female to male sex ratio. Following the first reports of this autosomal trisomy, cases of double trisomy and of mosaicism have been discovered and reported. I. Y. (Hsu) and associates³ describe a case of double autosomal trisomy with mosaicism: trisomy 18 and 21 and a normal cell line. The dominant clinical features in the case were those of the trisomy 17-18 syndrome. There have also been reports of clinically suspected trisomy 18 with a normal karyotype.^{4,5} Hook and Yunis⁴ presented a case with numerous clinical features of trisomy 18 but in which the analysis of chromosomes from peripheral blood, bone marrow, and skin as well as analysis of the blood of both parents revealed only normal karyotypes. Here presented is a case of mosaic trisomy 17-18 syndrome at birth which was studied again at ten months of age and was found to have only a normal karyotype. A growth advantage of the normal cell line over the abnormal population of cells is suggested.

CASE REPORT

V. H. was born on March 5, 1965 of a full-term pregnancy of a 29-year-old mother and a 30-year-old father. The first trimester was complicated by a kidney infection. Librium® was taken during the first six weeks. Delivery was breech. Condition at birth was fair with respirations at 30 seconds, irregular, requiring four minutes of assistance with oxygen. The cry at one minute was weak. Birth weight was 7 lbs. 5 oz. (3.32K.); length, 18 inches (45.7 cm); head circumference, 14.5 inches (36.8 cm.); and chest circumference, 12 inches (33.0 cm.). Abnormalities noted at birth were a large

square forehead with prominent occiput, low wide nasal bridge, small low-set ears, small mandible, short neck, short sternum, generalized hypotonia, abnormal dermatoglyphics (simian crease, left hand) and abnormalities of the extremities later described as flexion contractures of fingers, congenital dislocation of hips, congenital genu recurvatum on the right, bilateral talipes equinovarus and rocker-bottom feet. Initial EKG (electrocardiogram) showed biatrial hypertrophy and right ventricular hypertrophy, but repeat EKG a short time later suggested only right atrial enlargement. Table 1 compares the more common features of trisomy 17-18 syndrome as listed by D. W. Smith in 1964⁶ with the anomalies found in this patient.

Chromosomal analysis performed according to a modification of the technique of Moorhead and associates⁷ on 70 peripheral blood leukocytes taken shortly after birth revealed 90 per cent of cells trisomic for E 17-18 and 10 per cent of cells of normal female karyotype. Figure 1 is a representative karyotype of the analyzed cells revealing trisomy E 18 at birth, and Figure 2 shows one of the seven normal cells detected in the analysis. During hospitalization as a newborn, tests for phenylketonuria, routine urinalysis, and amino acid screening were within normal limits. Vigorous orthopedic treatment was instituted. Adductor tenotomy and closed reduction of the hips were performed. Repeat EKG, intravenous pyelogram and ophthalmologic examinations were within normal limits. At ten months of age, the child was reevaluated. Though retarded she was sociable and able to roll over. Her physical growth was at the tenth percentile. It was felt that she had progressed more than would ordinarily be expected of a child with trisomy 17-18 syndrome. At fifteen months of age, because of definite asymmetry of the head with ridging of the metopic suture, skull films were obtained which showed synostosis of coronal, metopic, and fronto-orbital sutures. The patient underwent craniectomy for the synostosis.

Repeat chromosomal analysis of 65 peripheral blood leukocytes at ten months of age revealed a normal female karyotype. Chromosome study of 30 cells from direct bone marrow and 62 cells from

(Continued on Page 186)

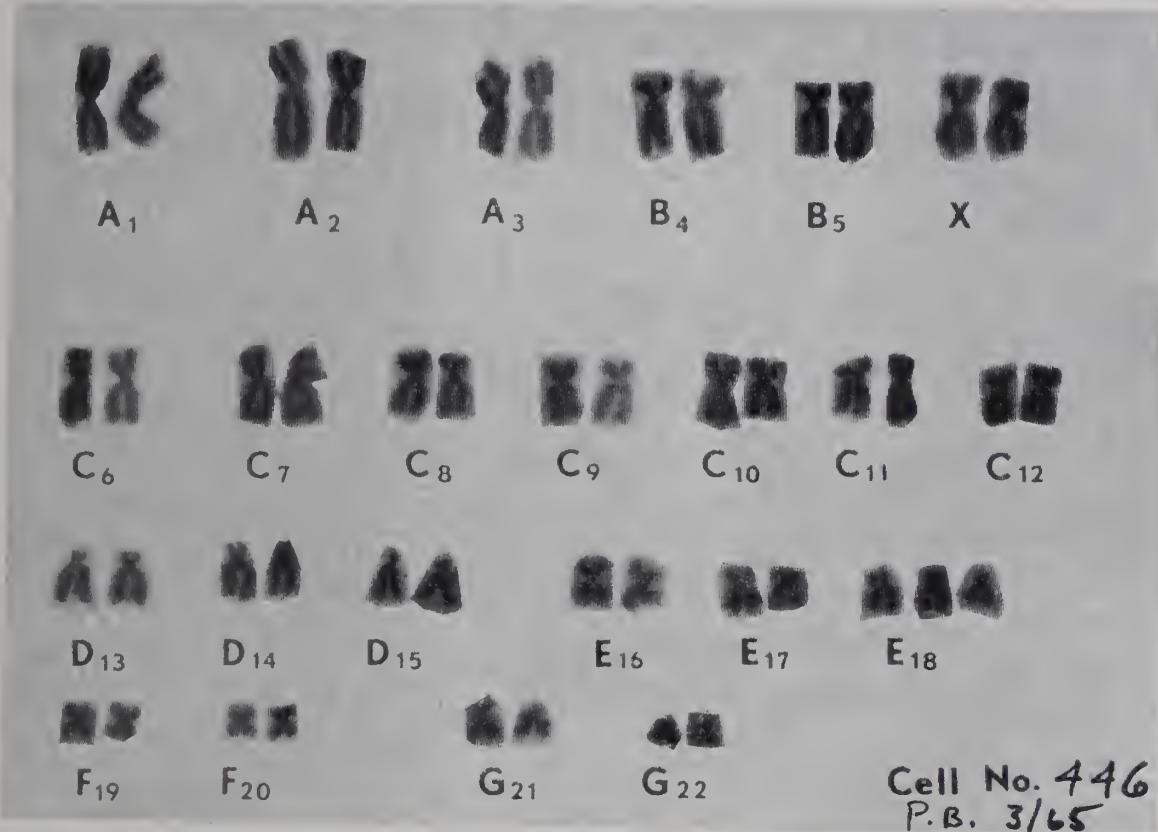


Fig. 1

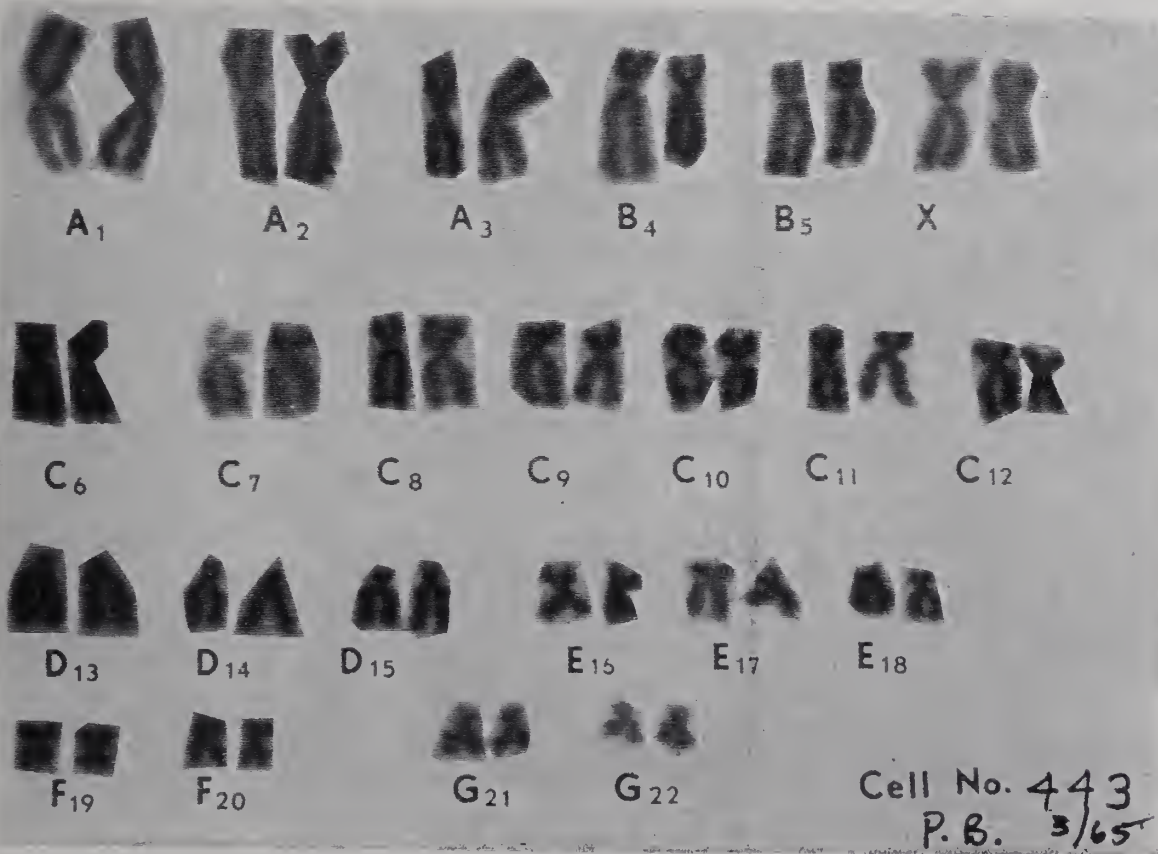


Fig. 2

skin fibroblasts also revealed a normal female karyotype. Figures 3, 4 and 5 show representative karyotypes of analyzed normal cells from blood, bone marrow, and skin respectively. Figure 6 shows the appearance of the patient at approximately one year of age.

A summary of the chromosome studies is found in Table 2. The study at birth revealed trisomy E 17-18 with 10 per cent normal mosaicism, but repeat cytogenetic studies after ten months of age failed to demonstrate any trisomic cells. Reexamination of the patient at 18 months of age revealed

(Continued on Page 188)

TABLE 2 V. H. Summary of Chromosome Studies							
Type of Culture	Date	# cells	<46	46	47	48	92
B	#1	3/5/65	35		5	30	
B	#2	3/5/65	35	1	2	32	
B	#3	1/26/66	35	2	33		
B	#4	3/3/66	30	5	25		
B.M.	#	4/8/66	30		30		
S	#1	6/14/66	30	9	15		6
S	#2	7/10/66	32	7	24	1	
Totals			227	24	134	62	1
							6

B = peripheral blood culture
B.M. = direct bone marrow preparation
S = skin culture

TABLE 1

Anomalies in the 17-18 Trisomy Syndrome		Anomalies in This Patient
Common (50% or more of patients)		
General	Female — 78% Death within 6 months — 89%	Female
Amniotic fluid	Polyhydramnios	
Placenta	Small	
Growth	Birth weight under 6 pounds Failure to thrive	
CNS	Apparent mental deficiency Hypertonicity	Mental deficiency
Cranium	Prominent occiput	Prominent occiput
Ears, Eyes	Low set, usually malformed ears	Low set ears, small
Mandible	Micrognathia	Micrognathia
Mouth	Narrow palatal arch	
Hands	Fingers flexed, index overlaps third and/or fifth overlaps fourth Digital pattern — 6 or more low arches on finger tips Simian crease, single crease fifth finger hypoplasia of fingernails (10-50% only) Ulnar or radial deviation of hand, flaccidity and/or hypoplasia of thumb (10-50% only)	Fingers flexed Simian crease left hand
Feet	Hallux short and/or dorsiflexed In 10-50%: rocker bottom, equinovarus, syndactyly second and third toes	Hallux short and malpositioned Rocker bottom, equinovalgus
Thorax	Short sternum Wide chest and/or wide spread nipples 10-50% of patients.	Short sternum Wide chest, wide spread nipples
Pelvis, hips	Small pelvis, limited hip abduction	Congenital dislocation of hips
Genitals	Male — cryptorchidism Female (10-50%) — prominent clitoris, small labia	Difference in leg length
Cardiac	Ventricular septal defect Patent ductus arteriosus	
Renal	Malformation	
Abdominal	Meckel's diverticulum, heterotopic pancreatic tissue	
Skin	Redundancy, downy hair forehead and back (10-50% of patients)	Redundancy, downy hair forehead and back Variegation in skin color
Addition Anomalies in This Patient:		
Low wide nasal bridge		
Short neck		
Congenital genu recurvatum — right		
Craniosynostosis		
Hypotonicity		

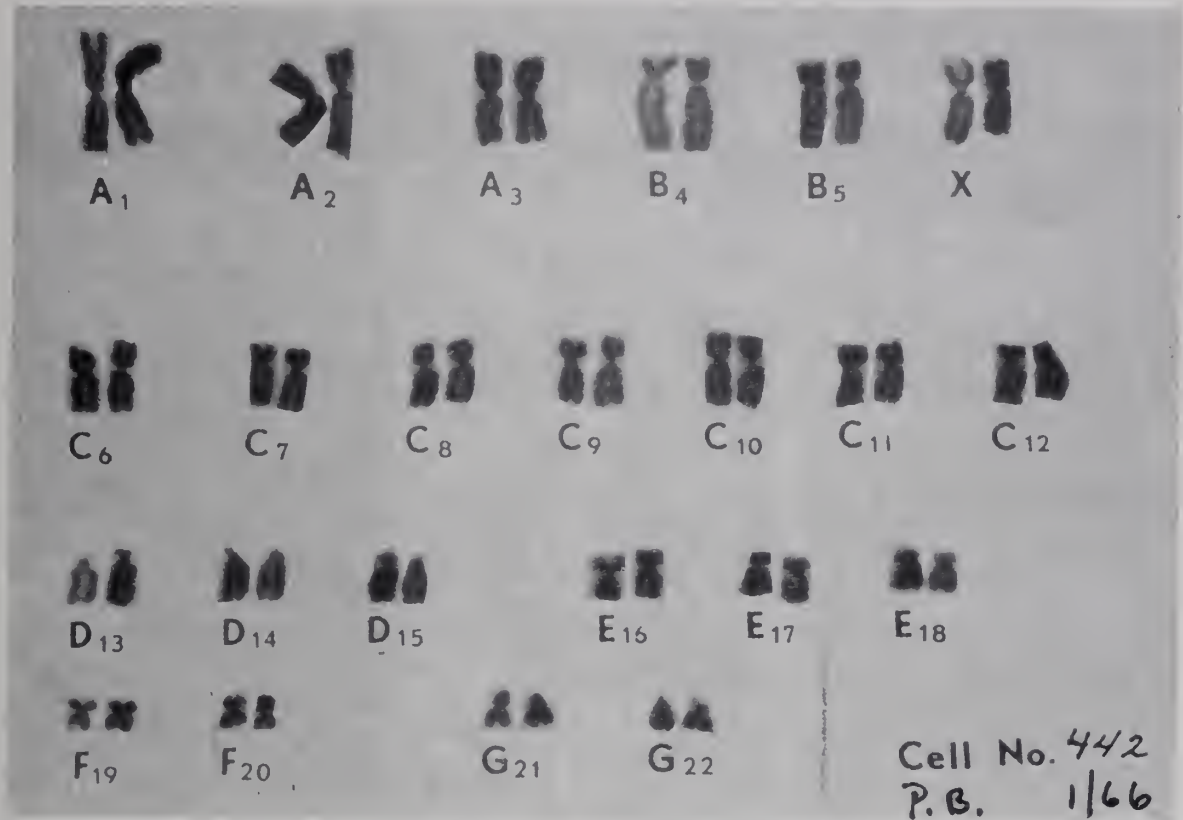


Fig. 3

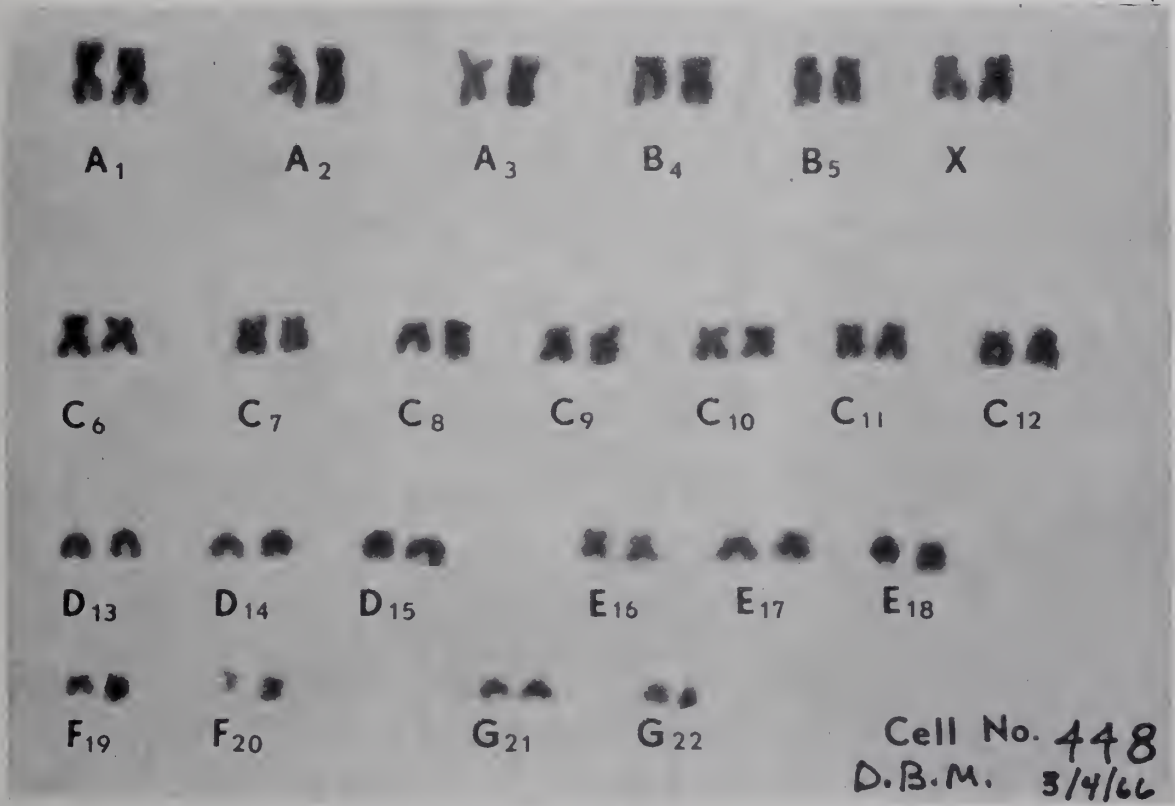


Fig. 4

continued severe retardation so that, although the abnormal cells had disappeared from the blood, skin and bone marrow, the underlying structural abnormalities remained unchanged.

DISCUSSION

Subsequent to the first direct chromosome observation of mosaicism in the human reported by Ford et al. in 1959,⁸ similar cases have been described with increasing frequency. The subject of mosaicism is reviewed by Eric Engel⁹ with discussion of the occurrence of different stem lines in the same individual, both gonosomal and autosomal. Also mentioned by Engel is the possibility of localized autosomal mosaicism, for example, abnormal chromosomes at the area of defect in a cleft palate. Corey and Miller¹⁰ suggest a classification for mosaicism with separation into two major categories; mosaics who are genetically uniform (for example, mosaicism due to variation in gene expression) and those who are not genetically uniform (for example, mosaicism due to somatic segregation and reduction). Mosaicism for the autosomal trisomies is suggested by many to be the result of non-disjunction at the level of postzygotic mitotic division. In considering mosaicism, it is usually assumed that an individual's mixocellular population is relatively constant and that the sample taken for chromosomal analysis at a particular time is

as representative of the individual's cells as is possible with the techniques that are now available. The constancy of the mixocellular population, however, is only an assumption and one that may prove false. The case presented here is an example of an individual whose mosaicism was found to change significantly — from 90 per cent trisomic cells to 100 per cent normal cells between the time of birth and ten months of age. Had this child been studied solely at birth she would have been considered a high percentage mosaic for trisomy E 17-18. If she had not been studied at birth but only at the age of ten months, she would have been assigned to the large category of children who have clinical features of a particular chromosomal syndrome but have a normal karyotype. In many children, in spite of numerous clinical signs and studies on various tissues, it has been impossible to make a cytogenetic diagnosis. It seems from these data that autosomal mosaicism can vary with age. We have concluded in the case presented that the normal population of cells exercised a growth advantage, with eventual replacement of the abnormal cells. However, the structural defects persisted because the initial abnormal cell population constituted the blueprint for development. Thus at the latest examination of the patient at eighteen months of age, severe mental retardation and delayed development have persisted.

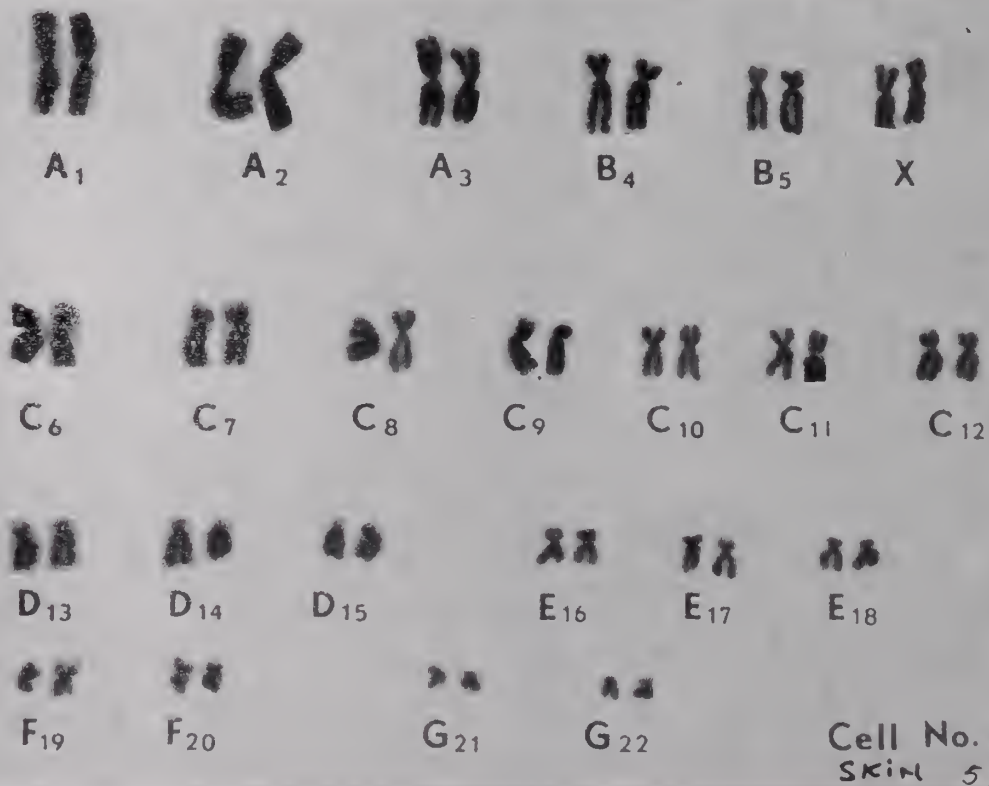


Fig. 5

The phenomenon presented here could explain many cases of forme fruste syndromes which present with normal chromosomal analysis. For example the paucity of cytogenetic findings in male Turner's syndrome which may represent XO/XY mosaicism could be due to the fact that only normal cells are available for study at the time the patient is examined. It is possible that mosaicism could be present in utero but could disappear by the time of birth leaving only the clinical structural abnormalities.

Another case was recently brought to our attention which presented with many of the stigmata of the trisomy 17-18 syndrome. Studied at birth, she failed to demonstrate cytogenetic evidence of the trisomy. One can speculate that we were once again dealing with a case of disappearing mosaicism.

SUMMARY

A female infant with many of the clinical characteristics of trisomy E 17-18 syndrome has been presented. Chromosome studies on peripheral blood performed at birth revealed a mosaicism of 90 per cent trisomic cells and 10 per cent normal cells. At 10 months of age, repeat analysis of the chromosomes of peripheral blood leukocytes revealed only a normal female karyotype. Analyses done on direct bone marrow and skin chromosomes were also normal. From these data it is apparent that ratios of mixocellular populations can be variable with time in mosaic individuals. It is postulated that in forme fruste syndromes having normal cytogenetic findings disappearing mosaicism is a possible mechanism.

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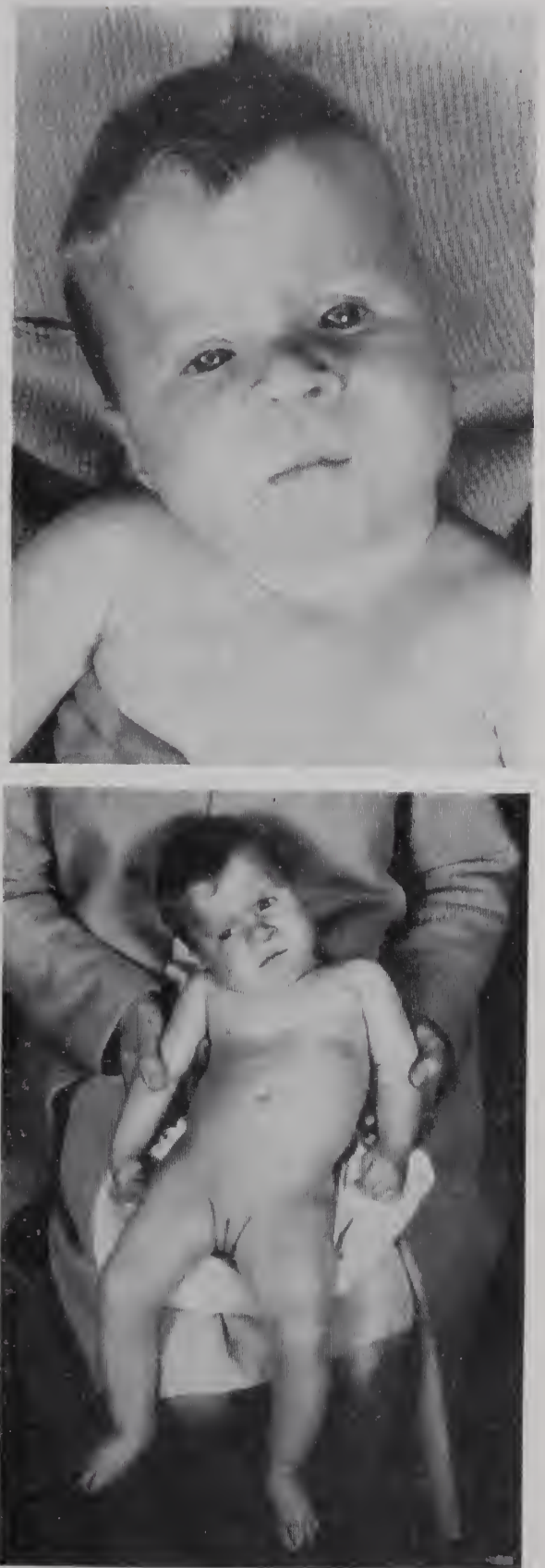


Fig. 6

RHODE ISLAND MEDICAL SOCIETY PHYSICIANS SERVICE

Report of Special Meeting of the Corporation, January 25, 1967

A special meeting of the Corporation of the Rhode Island Medical Society Physicians Service was held at the Rhode Island Medical Society Library, in Providence, R.I., on Wednesday, January 25, 1967. The meeting was called to order by the President, Dr. Arnold Porter, at 3:07 p.m.

The following members of the Corporation were in attendance: Rocco Abbate, M.D., Freeman B. Agnelli, M.D., Edmund Billings, M.D., Chelcie C. Bosland, Ph.D., Mr. J. Austin Carroll, Joseph Caruolo, M.D., Mr. George W. Chaplin, Nathan Chaset, M.D., Harry E. Darrah, M.D., John A. Dillon, M.D., Mr. James R. Donnelly, Charles Dotterer, M.D., Frank D. Fratantuono, M.D., Alvin G. Gendreau, M.D., Seebert J. Goldowsky, M.D., John P. Grady, M.D., Edmund T. Hackman, M.D., Herbert F. Hager, M.D., Mr. John J. Hall, Milton W. Hamolsky, M.D., Joseph Lambiase, M.D., Robert V. Lewis, M.D., Thomas Littleton, M.D., William MacDonald, M.D., Earl J. Mara, M.D., Peter Mathieu, M.D., William McDonnell, M.D., Raymond E. Moffitt, M.D., James B. Moran, M.D., Gustavo A. Motta, M.D., Raul Nodarse, M.D., Edwin B. O'Reilly, M.D., Alton Paull, M.D., Arnold Porter, M.D., William A. Reid, M.D., Ralph Richardson, M.D., H. Gerald Rock, M.D., Joseph Ruisi, M.D., Charles Serbst, M.D., Richard P. Sexton, M.D., Stanley D. Simon, M.D., Leonard Staudinger, M.D., John Turner, II, M.D., Henry M. Tyzkowski, M.D., John M. Vesey, M.D., Banice Webber, M.D., Elihu S. Wing, Jr., M.D., and Joseph E. Wittig, M.D.

Also present were Messrs. Frank Adae, associate executive director, Joseph Sullivan, assistant director, William E. McCabe, legal counsel, and John E. Farrell, executive secretary.

Members of the Corporation absent from the meeting were: Charles J. Ashworth, M.D., John T. Barrett, M.D., Joseph T. Barrett, M.D., Roger Berard, M.D., J. Robert Bowen, M.D., Joseph E. Cannon, M.D., Mr. Albert Christopher, Morgan Cutts, M.D., Stanley D. Davies, M.D., Michael DiMaio, M.D., Frederick C. Eckel, M.D., Mr. Emil E. Fachon, Charles L. Farrell, M.D., Henry B. Fletcher, M.D., Roger Fontaine, M.D., Warren W. Francis, M.D., John F. W. Gilman, M.D., Mr. John J. Halloran, James F. Hardiman, M.D., Arthur E. Hardy, M.D., Robert C. Hayes, M.D., Waldo O. Hoey, M.D., Stephen J. Hoye, M.D., Mr. Paul P. Johnson, Earl F. Kelly, M.D., Rev.

Joseph L. Lennon, O.P., James A. McGrath, M.D., Charles E. Millard, M.D., Mr. Felix Mirando, Judge Florence K. Murray, Frederick Peirce, Jr., M.D., Mr. George R. Ramsbottom, Francis B. Sargent, M.D., Carl S. Sawyer, M.D., and Mr. John Shepard, II.

REPORT OF THE BOARD OF DIRECTORS

Dr. Arnold Porter, President, presented the following report from the Board of Directors:

The Professional Advisory Committee, a joint committee of the Board and the Rhode Island Medical Society, have received and reviewed numerous requests for changes and/or revisions to the fee schedules of Physicians Service during the past year.

The Committee has carefully reviewed each request, frequently seeking advice from practicing physicians in the various specialties.

It is important to note that the Committee has not approved all requests; some are still under study, others have been rejected. Of the requests that have been approved, few have been accepted at the level of payment originally requested. The Committee has attempted to maintain the relativity between procedures and specialties.

As you know, the Professional Services Index (PSI), the basic guideline used for the fee schedules of Plans A & B, is simply a reflection of what all Blue Shield Plans *are* paying for professional services. PSI is not a relative value schedule reflecting what should be paid, or what the "going rate" is in the community for any given service.

The application of PSI in July, 1965 served to correct many of the longstanding inequities between procedures, specialties, and Plans A & B. The minor revisions already made and those proposed are in keeping with PSI principles. These changes, along with the periodic changes made by other Blue Shield Plans, will serve to update PSI nationally.

The changes and/or revisions approved by the Board of Directors are as follows:

1. *Code #0385* now reads "more than 3 lacerations, and/or lacerations irregularly shaped and requiring extensive debridement" and receives individual consideration. It is recommended that code #0385 be changed to "complex or unusual lacerations" and still be considered on an I. C. basis.

(Continued on Page 198)

VIII. HIGHWAY SAFETY:

NEW FREEWAY REGULATIONS SUGGESTED

Freeway driving is hazardous and taxing under the best of circumstances. When certain unnecessary burdens are added to the ordinary requirements of caution, alertness, and common sense, an effort should be made to correct these violations of good practice. With the rapid progress toward completion of Interstate Highways 95, 195, and 295 in Rhode Island some of the problems become more evident. We offer suggestions in two categories: 1. Driving tactics of heavy trucks and buses, and 2. Hitchhikers.

Much of the new freeway construction provides three lanes in either direction. It can be a terrifying and unnerving experience to have a huge bus or an 18 wheel trailer monster gunning past one on the center lane at breakneck speeds (often exceeding the posted limit). Not only is the noise unsettling, but at times the suction produced by this procedure can actually be felt to cause one's car to swerve toward that lane. Several important throughways, notably the New Jersey Turnpike and the New York Thruway, forbid heavy vehicles from using the center lane. This has enhanced greatly the comfort and safety of driving on those heavily traveled highways while apparently causing little inconveni-

ence to the commercial users. Provision could be made, of course, for those rare exceptions where design peculiarities make necessary a left turn for exit.

Hitchhikers on these high speed limited access routes constitute a serious abuse of public convenience. Stopping to pick up such individuals exposes them, the weak-brained drivers who stop, and others behind them to incredible risk. This writer has seen a police officer drive right by such a hitchhiker on Interstate Route 95 without apparently caring. Many important freeways in the country forbid the entry of hitchhikers and are posted to make this clear.

We, therefore, commend for the consideration of Rhode Island traffic authorities two new regulations covering freeway procedure:

1. Denying to heavy trucks and buses use of the center lanes on six-lane divided highways.
2. Forbidding hitchhikers on limited access highways.

Both of these regulations should be vigorously enforced and infractions punished with suitable legal penalties.

PREVENTION OF ALCOHOLISM

The New York Times of December 4, 1966 reported that the number of teenage alcoholics is rising in New York City despite efforts of physicians and social workers to reverse the trend. William J. Plunkert, director of alcoholism programs for the Community Council of Greater New York, reports that about one per cent of the 300,000 known alcoholics in the city are between the ages of 15 and 19. While new concepts of treatment of the alcoholic emphasizing a humane and scientific attitude are receiving increasing emphasis, this discouraging trend indicates the need for a preventive approach.

Doctor Morris E. Chafetz, Director of the Alcohol Clinic of the Massachusetts General Hospital, in an address before the IV World Congress of Psychiatry in Madrid, Spain, on September 1966, spoke of the "contagion" factor in alcohol problem

production — the spread of irresponsible, unhealthy drinking behavior to the developing and learning young.

"No effort in social and medical problems," he states, "can hope to succeed if it lends itself alone to treatment of the late stages of a condition. Treatment at best can only slow the flood waters, because the production of people outruns the production of treaters. Furthermore, we feel evidence exists to support the contention that if the same criteria are applied to alcohol problems as to other chronic conditions of medicine the success rate of treatment for alcohol problems is roughly equivalent to that for most other chronic conditions." He believes that a redirection and reemphasis toward the goals of early diagnosis and prevention is essen-

(Continued on next page)

tial. To aid in early diagnosis and prevention of alcoholism before it emerges in its late florid and destructive phase, he has proposed the following guidelines "for complex, industrialized societies as universals of alcoholic problems":

- (1) Any individual who by his own personal definition or by the definition of his immediate society (his family) has been intoxicated four times in a calendar year has an alcohol problem.
- (2) Any individual who goes to work intoxicated has an alcohol problem.
- (3) Any individual who must drink in order to get to and perform his work has an alcohol problem.
- (4) Any individual who is intoxicated and drives a car has an alcohol problem.
- (5) Any individual who sustains bodily injury requiring medical attention as a consequence of

an intoxicated state has an alcohol problem.

- (6) Any individual who comes in conflict with the law as a consequence of an intoxicated state has an alcohol problem.
- (7) Any individual who, under the influence of alcohol, does something he contends he would never do without alcohol has an alcohol problem.

Use of these criteria will allow early case-finding and, at the same time, "free the vast majority of problem-free drinkers from doubt and concern about their use of alcohol."

More enlightened attitudes in which alcoholism is viewed as a chronic illness rather than a moral or legal offense, and the refreshing approach of Doctor Chafetz in attempting to recognize early those young persons having a special alcohol problem offer promise of progress in this growing social and medical disorder.

MORTALITY FROM DISEASES ASSOCIATED WITH SMOKING: UNITED STATES, 1950-1964

A publication of the U.S. Department of Health, Education, and Welfare, titled as above and prepared by the National Center for Health Statistics (Series 20—No. 4, Oct. 1966) is of interest to all physicians. It is "An analysis of mortality trends by age, color, and sex of diseases stated by the Surgeon General's Advisory Committee in its report, *Smoking and Health*, to be associated with tobacco smoking." This report discusses two groups of diseases: (1) those to which the committee concluded "tobacco usage is causally related" and (2) those considered to be "associated with, but not clearly related to smoking."

The first group includes four conditions — cancer of the lung, cancer of the larynx, cancer of the lip, and chronic bronchitis. The first of these, lung cancer arising from bronchial epithelium has clearly been shown to be definitely caused by the inhalation of tobacco smoke. To quote "Smoking and Health" — "Cigarette smoking is causally related to lung cancer in men: the magnitude of the effect of cigarette smoking far outweighs all other factors. The data for women, though less extensive, point in the same direction." Similarly, in the case of cancer of the larynx cigarette smoking is cited as "a significant factor." Cancer of the lip, as has long been known is causally related to pipe smoking.

The fourth condition of which "cigarette smoking is the most important of causes" is chronic bronchitis. In discussing this disease one must also consider the usually associated condition, pulmonary emphysema, of which the Surgeon-General's report states "a relationship exists between cigarette smoking and emphysema but it has not been established that the relationship is causal." These opin-

ions should be considered carefully with especial attention to the type of data on which they are founded. Certainly the source of the statistics concerning chronic bronchitis and emphysema that are presented in the "Analysis of Mortality Trends" which we are discussing must be similar to those on which the opinions as to the three types of cancer that we have mentioned are based — namely, diagnoses on death certificates. When a patient dies of one of these three, the diagnosis is usually definite. On the other hand in reporting the death of a patient with "chronic obstructive pulmonary disease," a useful term which includes both chronic bronchitis and emphysema, it must be realized that one or the other of these terms will be used and the choice between them often determined by a rough clinical guess. As is well known the term "chronic bronchitis" is used freely in Britain for a clinical condition which in this country would usually be termed "emphysema." This confused situation has been distinctly cleared by the studies of Burrows and Fletcher,¹ the latter working in England and the former in Chicago. They describe two types of obstructive lung disease, one characterized by marked damage to respiratory ducts and alveoli and the other "showing a preponderance of inflammatory lesions of the smaller and terminal bronchi and but little damage to respiratory ducts and alveoli." They note also a third type in which both of these areas are markedly involved. Without going further into the details of these and other studies one can say that chronic bronchitis and emphysema, as indicated by a very large number of experimental and statistical studies are both nearly always the result of the inhalation of cigarette smoke over a

period of many years. Both are present in the majority of instances and are modified and intensified by various factors, the most important of which is bacterial infection.

The remainder of the report deals with other conditions "associated with but not clearly related to smoking." This group, in which emphysema is listed, but in which we believe it does not belong, consists of arteriosclerotic heart disease, including coronary disease; cirrhosis of the liver; gastric ulcer; cancer of oral cavity other than the lip; cancer of the bladder and other urinary organs; and certain specific non-coronary cardiovascular diseases. It is noted that the effect of alcohol in producing hepatic cirrhosis makes the possible relation of smoking to this condition difficult to interpret.

The statistics on which are based the conclusions as to the role of cigarette smoking in all the dis-

eases mentioned are definite and convincing. Although they are based on less accurate information than are most other statistical studies of this relationship, they point clearly to the same answer, namely that the continued excessive inhalation of cigarette smoke is the major cause of at least four diseases, two of which, bronchogenic carcinoma and chronic obstructive lung disease, are especially lethal, and is a contributing cause of many others. One must conclude that a physician who continues his habit of smoking cigarettes must be either an addict or a moron.

ALEX M. BURGESS, M.D.

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SILENT GALLSTONES

Surgeons have long recognized the danger of certain fallacious concepts about gallstones, misconceptions which have persisted over the years. Among these myths are the following: 1) that silent gallstones are relatively safe and, therefore, should be left alone, 2) that large solitary stones are significantly safer than multiple stones, and 3) that a significant number gallstones are silent. Recent clinical reports, the latest of many over the years, fairly successfully demolish these misconceptions.

As long ago as 1911 Will Mayo stated: "Ten years ago we heard a great deal about 'innocent gallstones,' which meant that their presence was not suspected until post-mortem examination brought them to light. We cannot now escape the conviction that the gallstones did cause symptoms and that we as diagnosticians were 'innocent.'" He added: "Gallstones are foreign bodies. Why delay operating until complications occur?" Selling these principles to non-surgeons has been an uphill battle. While there has been a growing body of opinion supporting their soundness, they do not yet always prevail.

In 1960 J. Lund (of Sweden) reported on a 20 year follow-up of 526 cases of primarily non-operated cholelithiasis. The mortality of the untreated cholelithiasis alone was at least 2.7 per cent. Over the age of 60 the mortality attributable to cholelithiasis rose to at least 7.2 per cent. Lund concluded that prophylactic removal of the gallbladder was indicated because it held a significantly lower mortality than non-operative treatment. The roster of modern American surgeons who support this view reads like a who's who of the breed. A similar study in 1948 by Comfort, Gray, and Wilson at the Mayo Clinic showed that of 112 patients

with asymptomatic stones, symptoms had eventually developed in 50 per cent, two-fifths of which were severe.

Frank Glenn, distinguished surgeon of New York who has written extensively on biliary surgery, recently stated (with C. E. Cahow, Jr.): "Whether or not calculi have produced symptoms prior to an episode of acute cholecystitis seems to make little difference regarding the sequelae that may develop at the age of 60 or older." Based on studies of two groups of patients operated upon before 30 and after 60 years of age, he concluded that calculous biliary disease is best treated when early diagnosis is followed by undelayed and carefully planned surgery. Glenn pointed out that over the years this view has been propounded by such great surgeons as Evarts A. Graham, Frank H. Lahey, and Allen O. Whipple, in addition to the Mayos, as already noted. Recently DeBakey has also supported this concept.

Speaking before the Society for Surgery of the Alimentary Tract in 1966, Colcock of the Lahey Clinic, basing his conclusions on a study of over 3,000 operated cases, stated that truly asymptomatic cholelithiasis is rare (about 4 per cent of the series). No common duct stones were found in this group, while they were present in 9 per cent of the symptomatic group. In the asymptomatic group there was only one death (from coronary thrombosis) (0.7 per cent) in a 78 year old woman who had an associated carcinoma. Colcock concluded: "Based on our experience, we believe that unless there is a strong contraindication to surgery, such as a recent coronary occlusion, the presence of cholelithiasis, even without symptoms, is an indication for cholecystectomy."

(Continued on next page)

In the discussion which followed Colcock's paper, he was unanimously supported by authorities from various centers, such as Warren H. Cole (Chicago), Harwell Wilson (Memphis), Claude E. Welch (Boston), and also W. H. Remine (Rochester, Minnesota), showing that the views of the Mayo group have not changed in this regard in over half a century.

The subtitle to a recent paper on the "Medical Management of Gallbladder Disease" by E. C. Raffensperger, a gastroenterologist at the University of Pennsylvania, states: "Treatment depends on the presence or absence of symptoms." While this heading suggests a discouraging lack of progress in this field, we were delighted to find that the subtitle was a misleading indication of the contents — perhaps a reflection of the prejudices of the editor. The following statement on asymptomatic gallbladder disease is contained in the author's conclusions: "Generally our clinic favors the surgical removal of the gallbladder that contains stones if the patient is a good operative risk, because of the ease with which it can be removed when it is not inflamed."

Harwell Wilson suggested that more studies such as that of Colcock would "help convince internists and general practitioners of the importance" of elective cholecystectomy for stones, symptomatic or asymptomatic. Colcock replied: "I do not think for one moment that this paper will change many

minds. . . . Someday it will be apparent that serious trouble will be prevented in some patients if gallstones discovered accidentally are removed." In view of the long series of convincing papers on this subject already in the literature (only partially summarized here) and the stubbornness of the myths surrounding the silent gallstone, Colcock's fears seem to have sufficient cause.

Yet, with the evident impact of increasing longevity and the emergence of an enlightened viewpoint among the younger non-surgical practitioners, Colcock's pessimism may, we hope, be unjustified.

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PURIFIED GASTRIN

The recent development of a purified gastrin has made possible the further extension of studies relating to its role in normal and abnormal physiology. Dragstedt et al. in 1951 produced gastric, duodenal, and jejunal ulcers in dogs by transplanting an antral pouch into the transverse colon. Continuous stimulation of the antral mucosa by the fecal stream caused sustained release of endogenous gastrin. These and other studies helped to clarify the role of pyloric stasis in the production of gastric ulcer and of retained antral mucosa after gastric resection in jejunal ulcer. Until recently, however, peptic ulcer had not been induced experimentally by injection of exogenous gastrin.

Using a purified extract of hog antral mucosa in gelatin, Gobbell and Adkins have recently demonstrated increased gastric acid secretion in dogs. They have, in fact, produced by this method duodenal ulcer in 74 per cent of a series of guinea pigs.

Gregory and Tracy have now accomplished the final chemical identification of the gastric antral hormone. Based on this work, Imperial Chemicals Incorporated of England has now produced a synthetic pentapeptide with gastrin-like properties.


Oesignated I.C.I. 50,123, it is now available for experimental purposes. Several studies utilizing this material have emanated from the British Isles. Wormsley et al. of the Royal Infirmary of Manchester carried out studies in human volunteers and in patients with peptic ulcer. They concluded that the substance administered by intravenous infusion and subcutaneous injection is the most effective gastric stimulant readily available and is surpassed in potency only by natural gastrin.

Logan et al. of Queen's Hospital in Belfast, using the same preparation in volunteers, showed increased activity of the colon and rectum as measured by pressure balloon indicators after injection of the pentapeptide. The possible role of this hormone in the gastrocolic response was suggested.

With the purification, identification, and synthesis of an increasing number of humoral substances (in the January 1967 issue of the Journal we discussed developments in pancreatic secretin and gastric inhibitor) the bodily processes will be further elucidated and better understood.

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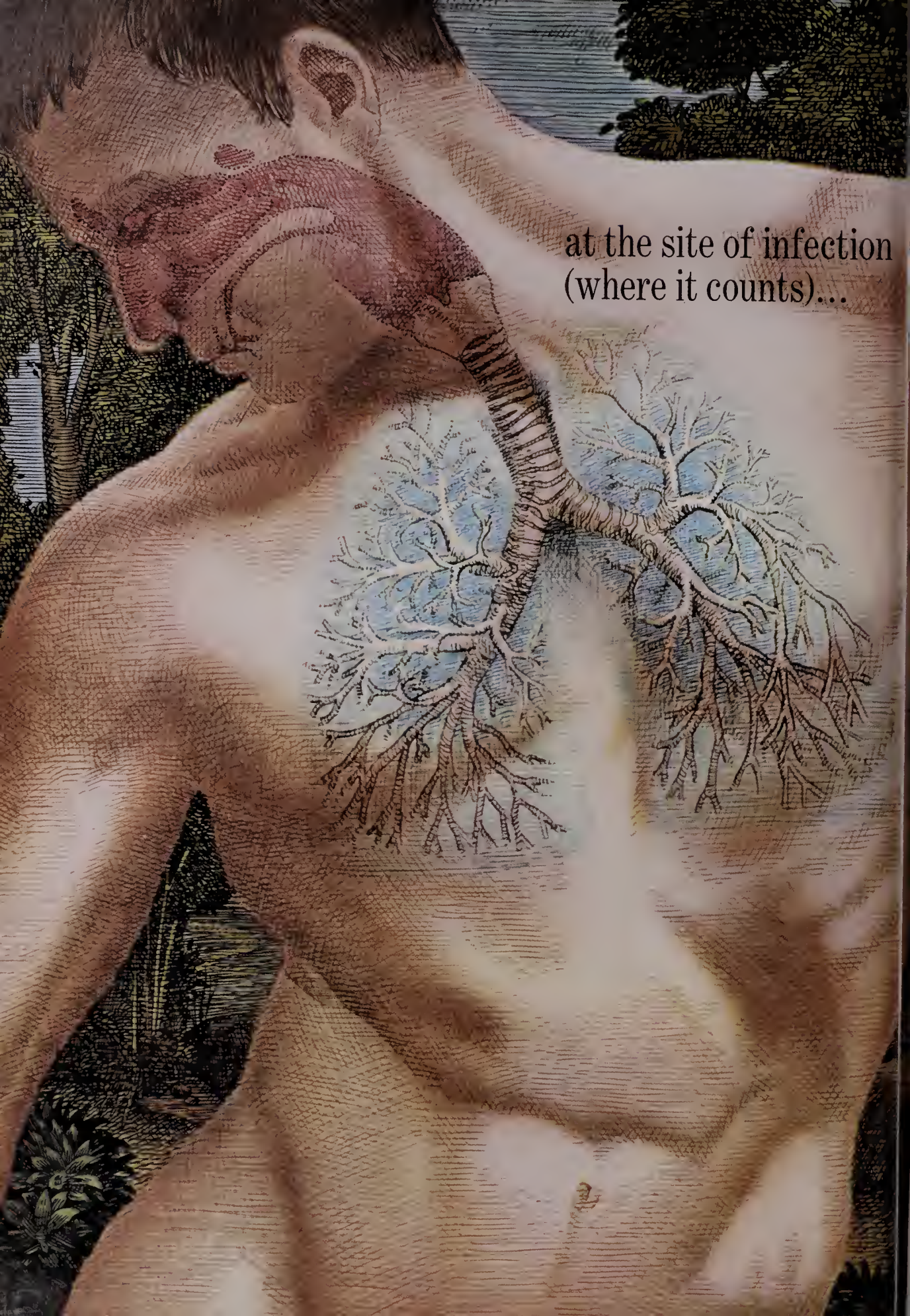
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Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food¹⁻³

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.^{1,2} Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.^{1,3}

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of

staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Ilosone®
Erythromycin Estolate

700121



(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone. **Contraindications:** Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to

be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months; patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of the patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who received 250 mg. of Ilosone daily for an average of sixteen months for rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevations of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (ten-day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a side effect of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticarial skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally as Ilosone Pulvules®, Ilosone Chewable Tablets, Ilosone Drops, or Ilosone, 125, for Oral Suspension.

For infants and for children under twenty-five pounds of weight, the usual dosage is 5 mg. per pound every six hours. For children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended after the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days is recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base), in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages.

References: 1. Griffith, R. S., and Black, H. R.: *Am. J. M. Sc.*, 247:6 (1959).
2. Griffith, R. S., and Black, H. R.: *Antibiotics & Chemotherapy*, 12:39 (1959).
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: *Am. J. M. Sc.*, 239:198 (1960).

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

HONORABLE JOHN E. FOGARTY (1913-1967)

Eulogy Delivered by Reverend Joseph L. Lennon, O.P. Dean, Providence College, at the Cathedral of SS. Peter and Paul, Providence, Rhode Island, January 13, 1967.

"Blessed are the dead who die in the Lord. From henceforth now, saith the spirit, that they may rest from their labors; for their works follow them." (Book of the Apocalypse 14:13)

Let me state at once: we are not here to canonize John Fogarty, but in the words of St. Paul to "give honor where honor is due." He would not want it otherwise. Saints, I am sure we have among us, but John Fogarty would be the last person to place a halo on his head. Mere words of praise which never meant much to him when he was living would mean even less now that he is dead. Rather he would have us look upon his presence here before the altar as his last opportunity to speak to us, not of himself, but of the great loves that dominated his life: love for his family, relatives and friends, love for his church, his country and his countrymen, love for his fellowman, especially the poor, the sick, the ignorant, the handicapped, the downtrodden wherever they might be.

I know his first thought on this occasion would go out to his stricken relatives, his wife, Luise, his daughter, Mary, his brothers, his sister and their families. Great is their sorrow, but greater still is their faith. To them we offer our sincere sympathy. May the God of all consolation fill up with His presence the great void left by his death. May God's grace help all those who love him bear this heavy sorrow.

William James once said "The purpose of life is to spend it for something that outlives you." No man finds his ultimate end in himself. John Fogarty knew this. He realized that the secret of a healthy mind and a happy life lies in the principle of sharing with others, in building one's life on the ideal of service.

When a person applies his mind to the needs and welfare of others he becomes alert, active, joyful and interested in life. His world becomes full of real people, not merely walking shadows. He begins to have an actual investment in persons so that what they do, or fail to do, how they fare or how they suffer, becomes vitally important to him.

John Fogarty spent himself for others. He thought of his life as a contribution. The harder he

worked the more he contributed. But to what was this contribution made? To think that he had added to the possibilities of happiness for mankind must have pleased him. But this was not enough. He knew that the sum total of human beings considered as such has no real existence. It exists, if at all, only in the individuals who compose it, and of these the self is one. But there is no absolute reason why one mortal being should work and sacrifice for another, or for two or three, or as many as you will, if all are mortal, and all sacrifice ends in death, beyond which there is nothing more.

If beyond all temporal rewards, however, there are eternal values, if society has a final end, unseen indeed, but towards which it is ever advancing through war and pestilence and social conflict, and if this end will not pass with the passing of time, but by that very passing attain its eternal expression, then whatever the individual does in furthering the work of the social order has absolute and eternal value. To realize this, even as a possibility, brings a new glimmer of hope into the human mind. To know it with the assurance of faith plants in the mind principles that dominate conduct.

This is how John Fogarty knew it. He saw the value of his work in the great scheme of things. He looked upon his efforts as a contribution to a work that will never die. Disappointments and frustrations he bore with patient equanimity because he knew that one must suffer to the end that a life's work may be finished and an unselfish contribution made to the welfare of humanity and to that eternal order which the Supreme Intelligence is establishing in a world of intelligent beings.

It is a rare person who can hold the same office

(Continued on next page)

United States Representative John E. Fogarty was, at the time of his death, one of three honorary lay members of the Rhode Island Medical Society. Father Lennon, an active participant in all manner of affairs relating to community welfare, is a member of the Board of Directors of Rhode Island Medical Society Physicians Service.

for twenty-six years without becoming stale and unyielding in his ideas, who can keep a lively interest in life and its changes while keeping a watchful eye on values that never change. John Fogarty won the respect of his colleagues, and the esteem of all humanitarians, by his interest in and knowledge of the ever developing sciences dealing with health, education and welfare. He grew with his job. With all his busyness, with all his talking at Junior high schools, granges, churches, colleges, fraternal clubs and organizations, with all his activity on behalf of the mentally retarded and other worthy causes, yes, and even as a champion of Ireland and Irishmen, with all the many, many demands upon his time and charitable nature, he still exposed himself to ideas and listened to the counsel of the learned. And so he matured, and as he matured, the Country and the American people reaped the benefit of his experience and wisdom.

But this politician in the green bow tie was also fully human. The faults of a strong and fiery temperament were ever present in his character. On occasion, he could be obstinate, argumentative, strong in his dislikes, fierce in his loyalties, sharply critical in his remarks. But would you deny an Irish bricklayer these very human traits, traits which became virtues when he used them in relentless pursuit of the appropriations for the health and welfare projects he loved so dearly? This man never looked for a fight, but he never dodged one. He followed the advice of Theodore Roosevelt, "Let us not shrink from strife, provided we are certain that strife is justified." Strife was justified, in John Fogarty's mind, wherever the health and welfare of the American people were at stake, and he would fight to the bitter end for the money needed for critical projects. Moral courage like this should not pass unnoticed.

Some have mourned that this patriot who labored so hard to stretch the life span of our citizens should die so young. But the poet tells us:

Who well lives, long lives; for this age of ours
Should not be numbered by years, days and hours.

"The point is," says Seneca, "not how long you live, but how nobly you live." John Fogarty's life provides a history of noble living and accomplishment. He did not merely talk about serving mankind, he did something about it. In this, he was a good Christian, for Christ's doctrine is not just an abstraction, a lovely theory, a pretty myth. It expresses itself in action. To illustrate what He meant by a good neighbor, Christ related the story of the Good Samaritan who actually helped the man waylaid by robbers. John Fogarty was a good samaritan. He was "his brother's keeper," and went to great lengths to demonstrate his active love for neighbor. The spirit of this statesman deserves to live on in every medical researcher at the National

Institutes of Health who works to stamp out disease. It will live on in every college and professional school where students work under grants made possible by this lawmaker. It will live on in every person who is the beneficiary of the Fogarty life and who relates the work he is doing, however small, to the common welfare of his country.

Every person has to come to terms, in his own way, with death. John Fogarty came to terms with death fifteen years ago when he suffered a heart attack. He knew he was living on borrowed time and he made the most of every minute. The thought of death, or even the prospect of it, does not essentially change the Christian relationship to any given moment. "Do what you're doing," is a basic principle of the spiritual life. For anyone, like John Fogarty, who is convinced of the transcendent value of the "here and now," the job at hand, the daily work is the important thing. He never worried about the future. He left it in God's hands and got on with what he was doing.

The combination of work in the present and trust in God's grace for the future had become a settled habit of mind with John Fogarty. He never complained about his health because he believed that he would be called in God's good time. It was this duty, this joy, this sorrow, this project that engrossed his attention. He made the most of the present. He had come to terms with death because he had come to terms with Christ. Realist that he was, he took at face value the words of Jesus Christ when He said, "I am the Resurrection and the Life; he who believeth in Me, although he be dead, shall live: and every one who liveth and believeth in Me shall not die forever."

To John Fogarty we say:

Life's race well run
Life's work well done
Life's victory won
Now cometh rest.

PURIFIED GASTRIN

(Concluded from Page 194)

Smith, C. A.: Experimental Hyperfunction of the Gastric Antrum with Ulcer Formation. *Ann. Surg.* 134:322, 1951

²Gobbel, W. G., Jr., and Adkins, R. B.: Production of Duodenal Ulcers by Exogenous Gastrin: An Experimental Model. *Am. J. Surg.* 113:183, (Feb.) 1967

³Gregory, R. A., and Tracy, H. J.: The Preparation and Properties of Gastrin. *J. Physiol.* 149:70, 1959

⁴Gregory, R. A.; Hardy, P. M.; Jones, D. S.; Kenner, G. W.; and Sheppard, R. C.: The Antral Hormone Gastrin. *Nature* 204:931, 1964

⁵Wormsley, K. G.; Mahoney, M. P.; and Ng, Margaret: Effects of a Gastrin-Line Pentapeptide (I.C.I. 50,123) on Stomach and Pancreas. *Lancet* 1:993, 1966

⁶Logan, C. J., and Connell, A.M.: The Effect of a Synthetic Gastrin-Like Pentapeptide (I.C.I. 50,123) on Intestinal Motility in Man. *Lancet* 1:996, 1966

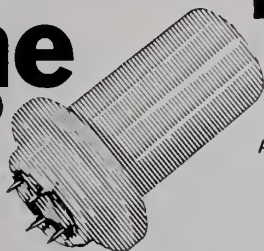
what time is it?

For the past
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of active tuberculosis
reported for every
four thousand
of U.S. population.

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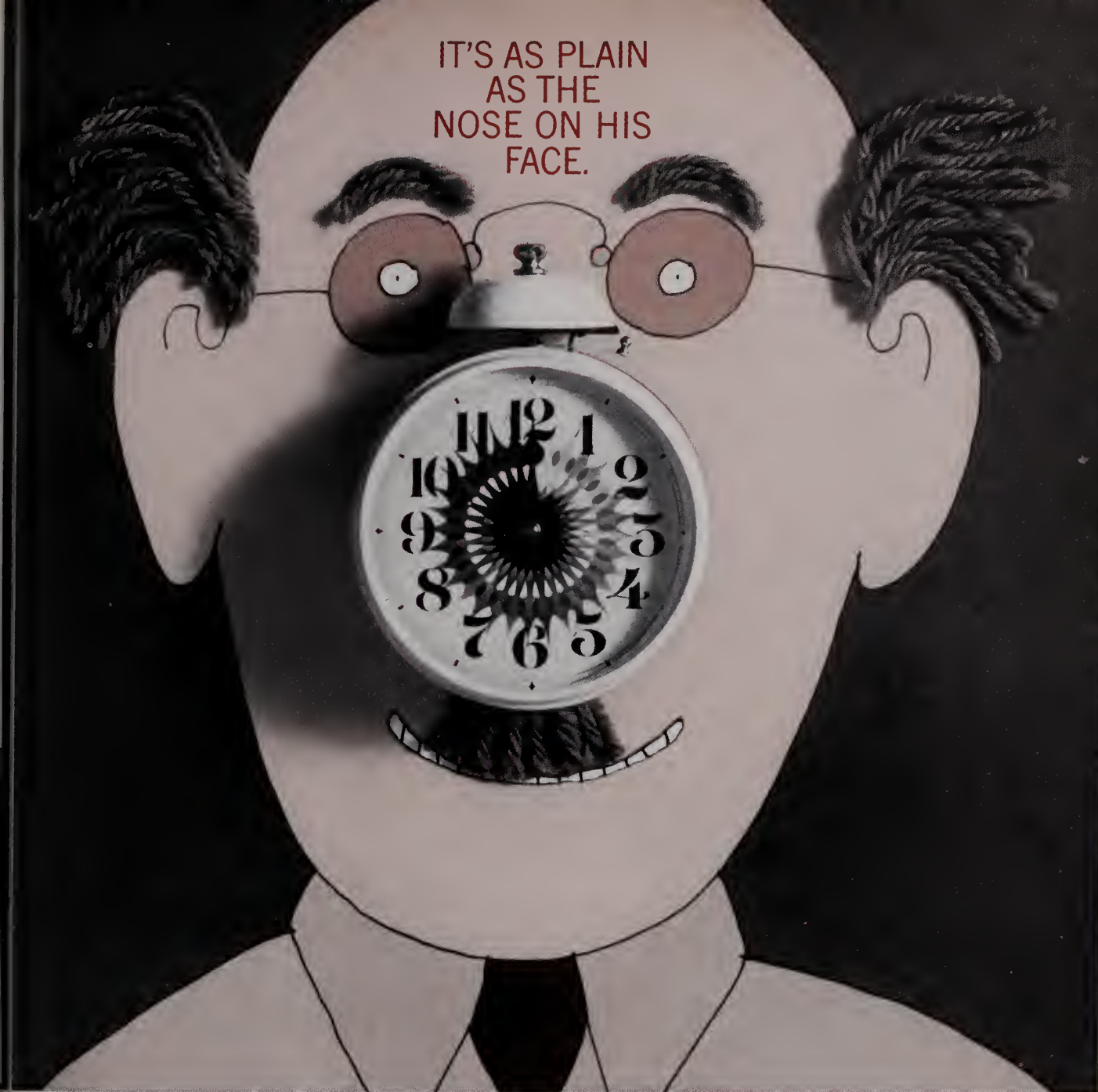
(Continued from Page 190)

2. Code #0457 — *Simple Mastectomy (female)* be increased from 29 to 33 units.
3. Code #0460 — *Simple Mastectomy (male)* be increased from 16 to 25 units.
4. Code #1941 — *Rhinotomy with removal of a foreign body* be included in the schedules at 3 units.
5. Code #2337 — *Intra-Arterial Catheterization* be included in the schedules at 18 units.
6. Codes #2561-2568 *Varicose Veins* be deleted on page 31 of the PSI Manual and replaced by the following codes, procedural listing and unit values: (present values are shown in brackets).

Code #2561	36 units	(29)
Long Saphenous Vein Ligation and Stripping (Unilateral)		
Code #2562	54 units	(41)
Long Saphenous Vein Ligation and Stripping (Bilateral)		
Code #2563	29 units	(29)
Short Saphenous Vein Ligation and Stripping (Unilateral)		
Code #2564	43.5 units	(41)
Short Saphenous Vein Ligation and Stripping (Bilateral)		
Code #2565	46 units	(35)
Ligation and Stripping of both Long and Short Saphenous Veins (Unilateral)		
Code #2566	69 units	(49)
Ligation and Stripping of both Long and Short Saphenous Veins (Bilateral)		
7. Code #2601 — *Splenectomy* be increased from 59 to 65 units.
8. Code #2674 — *Lymphadenectomy, groin, unilateral* be increased from 54 to 65 units.
9. Code #2927 — *Excision of Parotid Tumor or Gland, superficial, without nerve dissection* to remain at 36 units.
 Code #2928 — *Excision of Parotid Tumor or Gland, superficial, with nerve dissection* and preservation of facial nerve be increased from 64 to 70 units.
 Code #2934 — *Excision of Parotid Gland, total, with nerve dissection* and preservation of facial nerve be increased from 70 to 80 units.
 Code #2937 — *Excision of Parotid Gland, total, with sacrifice of facial nerve* to remain at 45 units.
10. Code #2993 — *Tonsillectomy, age 12 or over*, be increased from 16 to 18 units.
11. Code #3043 — *Esophagectomy* be increased from 93 to 97 units.
12. Code #3115 — *Subtotal Gastrectomy* be increased from 72 to 80 units.
13. *Vagotomy and Pyloroplasty* be assigned a code number of 3138 for 60 units.
14. Code #3174 — *Small Bowel Resection* be increased from 58 to 65 units.
15. Code #3191 — *Enteroenterostomy* be increased from 41 to 52 units.
16. *Amnio-centesis* be included in the schedules at 5 units.
17. Code #3495 — *Common Bile Duct Exploration* be increased from 59 to 66 units.
18. Code #3500 — *Duodenocholedotomy, Chole-docholithotomy* be increased from 65 to 75 units.
19. Code #3521 — *Choledochoplasty* be increased from 75 to 85 units.
20. Code #3635 — *Hernia, Recurrent, Inguinal* be increased from 38 to 48 units.
21. Code #3651 — *Hernia, Recurrent, Femoral* be increased from 38 to 48 units.
22. Code #3661 — *Hernia, Ventral, Incisional* be increased from 40 to 48 units.
23. Code #3663 — *Epigastric Hernia* (not incisional) be increased from 29 to 36 units.
24. *Hernia, Strangulated, with bowel resection for strangulation* be added to PSI under code #3636 for a strangulated inguinal hernia, and Code #3652 for a strangulated femoral hernia, each assigned 70 units.
25. Code #4488 — *Colpoperineoplasty — anterior & posterior* be increased from 42 to 50 units.
26. Code #4631 — *Vaginal Hysterectomy* remain at the 60 units presently assigned.
27. Codes 5961-5964 — *Myringotomy with insertion of ear prosthesis*, an additional 3 units allowed for insertion of ear prosthesis with a Myringotomy.
28. Code #9358 — *Electromyography, one extremity and related areas of the back* be included in the schedules at 6 units.
29. Code #9359 — *Electromyography, each additional extremity* be included in the schedules at 3 units.
30. *Payment for Bilateral Procedures* — all bilateral procedures (listed and unlisted) be paid on the basis of one and one-half (1½) within a ninety-day period.
31. That an additional allowance of 3 units (Plan A-\$9, Plan B-\$13) be authorized when an ear prosthesis is inserted in conjunction with a Myringotomy (codes 5961-5964).
32. That code 2993, *Tonsillectomy, age 12 or over*, be increased by 2 units. (This would

(Continued on Page 200)

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NOSE ON HIS
FACE.



UP TO 10-12 HOURS' CLEAR BREATHING ON ONE TABLET
Dimetapp® Extentabs®

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sinusitis, colds, or U.R.I., Dimetapp lets congested patients breathe easy again. Each Extentab brings welcome relief all day or all night, usually without drowsiness or overstimulation. Its key to success? The Dimetapp formula — Dimetane (brompheniramine maleate), a potent antihistamine reported in one study to have elicited side effects as few as the placebo,* teamed with decongestants phenylephrine and phenylpropanolamine — a dependable 10- to 12-hour form.

Contraindications: Patients hypersensitive to antihistamines. Not recommended for use during pregnancy.

Precautions: Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.

Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on

rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability, or excitement may be encountered.

Dosage: 1 Extentab morning and evening, or as needed.

Supplied: Bottles of 100 and 500.

Also available: Dimetapp® Elixir for conventional *t.i.d.* or *q.i.d.* dosage. See package insert for further details.

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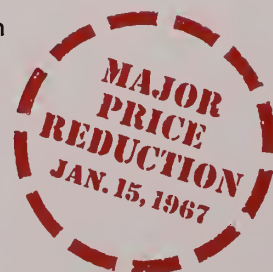
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Otrivin®
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on Rx only




- quickly relieves congested nose
- action is gentle, yet prolonged
- side effects are minimal

INDICATION: Nasal congestion. **CONTRAINDICATION:** Do not use in patients sensitive to small doses of sympathomimetic substances. **WARNINGS:** Prolonged or excessive use may cause rebound congestion. Use cautiously in patients with hyperthyroidism, coronary artery disease, hypertension, and diabetes. **CAUTION:** Do not shake Nasal Spray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water after each use. No more than one person should use the same dropper bottle or nasal spray.

SIDE EFFECTS: Occasional local reactions: rebound congestion, slight burning or stinging, sneezing, dry nose. Occasional systemic effects: headache, drowsiness, lightheadedness, insomnia, palpitations. Overdosage in young children may produce profound sedation. **USAGE: Adults:** Nasal Solution—2 or 3 drops in each nostril every 4 to 6 hours. Nasal Spray—Squeeze rapidly once or twice in each nostril every 4 to 6 hours. **Children under 12:** Pediatric Nasal Solution—2 drops in each nostril every 4 to 6 hours. One drop should be used

in infants under 6 months. **Pediatric Nasal Spray**—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours as necessary. **SUPPLIED:** OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) Nasal Solution, 0.1%; dropper bottles of 1 fluidounce, bottles of 1 pint. Nasal Spray, 0.1%; plastic squeeze tubes of 15 ml. Pediatric Nasal Solution, 0.05%; dropper bottles of 1 fluidounce. Pediatric Nasal Spray, 0.05%; plastic squeeze tubes of 15 ml. Nasal Solutions contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. Nasal Sprays contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic, sodium chloride, and benzalkonium chloride 1:5000 as preservative in water. Consult complete literature before prescribing. CIBA Pharmaceutical Company, Summit, N. J.

C I B A



Do your patients
shell out too much
for a diuretic?

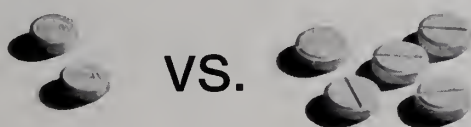
The answer may be yes...if they're not on Hygroton. For instance, a therapeutic dose of a short-acting diuretic may cost 3 times as much as an equivalent dose of Hygroton. With Hygroton, in fact, you can usually do the job with just one tablet a day or one every other day. It's no wonder that the trend has been away from short-acting, multiple-dose, high-cost diuretics.

You may hear that a short-acting diuretic was more effective in a 400 mg. (ten-tablet) dose than Hygroton in a 200 mg. (two-tablet) dose.

If one considers maximum recommended doses for each product, tablet for tablet Hygroton was clearly superior. Two tablets of Hygroton were found to produce almost 40% more natruresis and 20% more weight loss than five tablets of the other diuretic.* Note that these are maximum recommended doses!

For effectiveness, economy, and convenience, therefore, Hygroton is the diuretic to choose to start with and the one to stay with.

*Brest, A. N., et al.: J. New Drugs 5:329, 1965.



Natruresis above control values after maximum recommended doses (mEq./24 hours) in "normal" patients

111
5 tablets short-acting
nonthiazide diuretic

152
2 tablets
Hygroton

48-hour weight loss after maximum recommended doses in edematous patients with congestive heart failure due to arteriosclerotic or rheumatic heart disease

1.84 lbs.
5 tablets short-acting
nonthiazide diuretic

2.2 lbs.
2 tablets
Hygroton

Indications: Hypertension and many types of edema involving retention of salt and water.

Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.

Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH,

or digitalis. Salt restriction is not recommended.

Side Effects: Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.

Availability: Tablets of 100 mg. in bottles of 100 and 1000. For full details, see the complete prescribing information. 6524-V(B)

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PHYSICIANS SERVICE

(Continued from Page 198)

produce an assigned value of 18 units for this procedure: Plan A-\$51, Plan B-\$75).

33. That Intra-Arterial Catheterization (code 2337) at 18 units (Plan A-\$51, Plan B-\$75) be included.
34. That amnio-centesis with the assigned value of 5 units (Plan A-\$14, Plan B-\$21) be included.

* * *

Recommendations Concerning Plan A

The following motion was voted by the Board: "That the Physicians Service Board of Directors re-affirm and re-emphasize the policy of phasing out Plan A as voted at the October 24, 1966 meeting. It is the policy that Plan A will not be promoted nor offered to any new groups or new Direct Pay members unless under unusual and special circumstances, such as when it can be determined that the potential subscribers are under the income limits.

"Further, that the Physicians Service Board go on record that Plan A is no longer adequate to meet the cost of surgical and medical care for most of the population.

"Further, in July, 1967, the enrollment of Plan A and this policy will again be reviewed by the Board of Directors."

* * *

- 1) *Action:* A motion was made and seconded to approve the thirty-four recommended changes and/or revisions to the Professional Services Index.

There was discussion of the proposed changes, and of other possible revisions to the schedule. The motion was voted.

- 2) *Action:* A motion was made, seconded and voted to approve the action taken by the Board of Directors concerning Plan A.

ANNUAL MEETING OF THE CORPORATION

Doctor Porter announced that the Annual Meeting of the Corporation was scheduled by the Board for Monday, March 13, 1967, at 4 p.m., at the Sheraton Biltmore Hotel.

Members of the Corporation discussed the advisability of holding the Annual Meeting on a Monday.

Action: A motion was made, seconded and voted that, if possible, the Annual Meeting in 1967 be held on a Wednesday, instead of Monday, March 13, and that in subsequent years the Meeting be held on a Wednesday and preferably at a late afternoon hour of 5 or 6 p.m.

ADJOURNMENT

The meeting of the Corporation was adjourned at 4:02 p.m.

Respectfully submitted,
GEORGE W. CHAPLIN, M.D.
Secretary



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HOUSE OF DELEGATES OF THE RHODE ISLAND MEDICAL SOCIETY

Report of Meeting Held January 25, 1967

A meeting of the House of Delegates of the Rhode Island Medical Society was held at the Rhode Island Medical Society Library in Providence on Wednesday, January 25, 1967. The meeting was called to order by the President, Dr. Harry E. Darrah, at 4:05 p.m.

The following delegates were in attendance: Drs. H. Gerald Rock, John M. Vesey, Joseph E. Wittig, Charles Dotterer, Charles Serbst, Edmund Billings, Robert C. Hayes, Earl J. Mara, Alton Paull, Freeman B. Agnelli, James A. McGrath, Joseph Ruisi, Leonard Staudinger, Harry E. Darrah, Michael DiMaio, John A. Dillon, William A. Reid, Joseph Caruolo, Nathan Chaset, Frank Fratantuono, Alvin G. Gendreau, Seebert J. Goldowsky, John P. Grady, Herbert F. Hager, Milton W. Hamolsky, Joseph Lambiase, Robert V. Lewis, Thomas Littleton, William J. MacDonald, Peter L. Mathieu, William McDonnell, Raymond E. Moffitt, James E. Moran, Gustavo A. Motto, Raul Nodarse, Edwin B. O'Reilly, Arnold Porter, Ralph D. Richardson, Carl S. Sawyer, Richard P. Sexton, Stanley D. Simon, John Turner II, Henry M. Tyszkowski, Banice Webber, Elihu S. Wing, Jr., and Edmund T. Hackman.

Also present were Dr. Albert Anderson, chairman of the Committee on the Future of the Private Practice of Medicine, and John E. Farrell, Executive Secretary.

Members absent from the meeting were: Drs. Charles E. Millard, Joseph Barrett, Earl F. Kelly, Roger Berard, Roger Fontaine, Stanley D. Davies, Stephen J. Hoyer, Joseph E. Cannon, John T. Barrett, J. Robert Bowen, Henry B. Fletcher, Warren W. Francis, John F. W. Gilman, and James Hardiman.

Minutes of Previous Meetings

Action: A motion was made, seconded and voted that the minutes of the September and December meetings of the House of Delegates, as submitted to the delegates subsequent to those meetings, be approved and placed on file.

Report of the Secretary

Action: A motion was made, seconded and voted that report of the Secretary, as submitted in the handbook for the meeting, be approved and placed on file.

Annual Report of Treasurer

Action: A motion was made, seconded and voted that the annual report of the Treasurer, as submitted in the handbook for the meeting, be approved and placed on file.

Report of Trustees of Benevolence Fund

Action: A motion was made, seconded and voted that the report of the Trustees of the Benevolence Fund, as submitted in the handbook for the meeting, be received and placed on file.

Recommendations of the Council

1. Blue Cross Representatives

Action: A motion was made, seconded and voted that Drs. Earl J. Mara and Arnold Porter be the Society's nominees as representatives on the Board of Directors of the Hospital Service Corporation of Rhode Island (Blue Cross).

* * *

2. Physicians Service Directors

Action: A motion was made, seconded and voted that Drs. Frederick C. Eckel, Waldo O. Hoey, Earl J. Mara, and John Turner II be nominated for three-year terms each as members of the Board of Directors of the Rhode Island Medical Society Physicians Service.

3. Continuing Education Course at Brown

Doctor Darrah briefly discussed the proposal for a continuing medical education course for the practicing physician to be conducted by the Department of Medical Science at Brown University. He stated that the Council had voted to support the program by publicizing it to the members, but it was not committed to the expenditure of any funds.

Action: A motion was made, seconded and voted that the House approve of the action taken by the Council regarding the proposal for the continuing medical education course at Brown University.

4. The President noted the action of the Council in supporting a resolution, as stated in the handbook for the meeting, from the Providence Surgical Society.

Action: A motion was made, seconded and voted that the House approve of the action of the Council on this resolution.

5. Educational Television Station in Rhode Island

Action: A motion was made, seconded and voted that the House approve of the program as proposed by Channel 36, Rhode Island's educational television station, and that it instruct the Committee on Television and Radio to work with Channel 36 in the development of medical education programs.

6. Generic versus Brand Names

The following resolution was submitted by the Council:

(Continued on Page 206)

Look how many ways

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chlorpromazine

can help

	Tranquilizer	Potentiator	Antiemetic
Agitation	●		
Alcoholism	●		●
Anxiety	●		
Cancer patients	●	●	●
Severe neurodermatitis	●		
Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or PDR. **Contraindications:** Comatose states or the presence of large amounts of C.N.S. depressants. **Precautions:** Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. **Side Effects:** Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with

I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or PDR.

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Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



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HOUSE OF DELEGATES

(Continued from Page 202)

"Whereas the members of the Rhode Island Medical Society are concerned with the provision of the highest quality medical care for all citizens, and

"Whereas there is a movement afoot to compel physicians by law to prescribe drugs in generic terms and to require pharmacists to dispense so-called generic drugs even if the physician orders a specific brand or designates the product of a particular manufacturer, and

"Whereas the development of prescription drugs by the reputable and ethical pharmaceutical companies involves complicated and sometimes subtle factors, such as the potency of drugs, compatability, purity, sustained release mechanisms and enteric coating, tablet disintegration time, solubility, particle size, choice of vehicle or base, quality of active ingredients, allergies and irritations, isotonicity, caloric values, melting point, surface tension, viscosity, ease of application and renewal, and flavor, and

"Whereas the manufacture of drugs thus is a complex procedure with many factors influencing the efficacy of the finished product, and pharmaceutical products having the same generic names may not actually be equivalent.

"Therefore Be It Resolved, That the Rhode Island Medical Society, through its House of Delegates in meeting on January 25, 1967, registers its objection and opposition to any legislation that interferes with the physician's prerogative to prescribe what his judgment dictates, or the pharmacist's responsibility to fill the prescription exactly as written, as being inimical to the public's health and welfare."

Action: A motion was made, seconded and voted that the resolution as stated be approved.

Nominees for Professional Advisory Committee

Doctor Darrah noted the Physicians Service by-law provision calling for the election of three of the six members of its Professional Advisory Committee by the Society, with the other three members elected by the Board of Directors of the Corporation.

Action: A motion was made, and seconded that Dr. John R. Bowen, Stephen J. Hoyer, and Earl J. Mara be re-elected.

A motion was made and seconded that the nominations be closed.

A motion was made and seconded that the House reconsider the motion to close the nominations. The motion was defeated.

The motion to close nominations prevailed,

and Drs. Bowen, Hoyer and Mara were elected as members of the Professional Advisory Committee.

Report of AMA Delegate

Dr. Edmund T. Hackman, delegate to the American Medical Association, stated that his complete report would be published in the January issue of the Rhode Island Medical Journal. He then gave a brief resume of the highlights of the actions taken by the House of Delegates of the AMA, and he noted that the digest of the amendments to the social security legislation proposed by the AMA had been included in the special file on Medicare distributed by the executive office of the Society.

Action: A motion was made, seconded and voted to accept the report of the delegate.

* * *

Members of the House discussed the matter of how confidential patient's records are to be considered in view of the regulations by government agencies and hospital administrations which permitted review of them by special committees and/or hospital personnel.

The House requested that the Society ask for a legal opinion on the issue by legal counsel of the Society.

Reports of Committees

On separate motions the reports of the following committees, as published in the handbook for the meeting, were approved and placed on file: Child-School Health, Diabetes, Maternal Health, Medical Aspects of Sports, Physicians and Carriers Workmen's Compensation, Scientific Work and Annual Meeting.

Committee on the Future of the Private Practice of Medicine

The President noted that the report of the Committee on the Future of the Private Practice of Medicine was included in the handbook for the meeting.

Action: A motion was made and seconded to table the report. The motion was defeated.

* * *

Dr. Albert Anderson, chairman of the committee, explained his report, and called attention to a memorandum from the federal Department of Health, Education and Welfare which in substance supported the position of the Committee, and which had been distributed by the executive office to the delegates at this meeting.

Action: A motion was made, seconded and voted to accept and place on file the report of the Committee on the Future of the Private Practice of Medicine as published in the handbook for the meeting.

Doctor Anderson explained his supplemental re-

port which was distributed to the members present at the meeting.

Action: A motion was made, seconded and voted to table the supplementary report of the Committee on the Future of the Private Practice of medicine.

Committee on Mediation

In the absence of the chairman (Dr. F. B. Sargent) Doctor Nathan Chaset read the report for the Committee on Mediation.

Action: A motion was made, seconded and voted that the report of the Mediation Committee, as presented, be approved and placed on file.

Committee on Social Welfare

A copy of the report of the Committee on Social Welfare was distributed to the members of the House at the meeting.

Dr. Peter L. Mathieu, chairman, read a communication dated January 25, 1967 from Progress for Providence relative to the Neighborhood Health Center Program.

Action: A motion was made, seconded and voted that the report of the Committee on Social Welfare be received and placed on file.

Committee on Medicine and Religion

The President noted that the report of the Committee on Medicine and Religion, relating to a conference to be held under the auspices of the Society on February 27th, was included in the handbook for the meeting.

Action: A motion was made, seconded and voted that the report of the Committee on Medicine and Religion be approved and placed on file.

Ad Hoc Committee on the Dr. Charles Potter Resolution

The President noted that the Ad Hoc Committee consisting of the Committee on Medicine and Religion, with additions, had filed its report which was published in the handbook. He noted that the Committee had submitted an amended version of the resolution submitted to the House in September by Dr. Charles Potter and referred to the Ad Hoc Committee for a report back to the House.

The report was discussed.

Action: A motion was made and seconded to accept the report and the resolution therein.

A motion was made and seconded to table the report and resolution. On a majority vote the motion to table prevailed.

(Dr. W. A. Reid requested that he be recorded as voting to table.)

Personal Privilege

On personal privilege Doctor Reid addressed the House and urged that all give careful consideration to the use of the action to table reports, in order that the work of the Society may not be impeded.

Physicians Service Meetings

The President noted that reports of the minutes

of the meetings of the Board of Directors of R.I. Medical Society Physicians Service were included in the handbook of House meetings in order that the delegates may be fully informed of the actions taken.

Doctor Arnold Porter answered several questions raised by members of the House regarding Board actions.

Report of Publications Committee

Dr. Robert V. Lewis gave an oral report of the work of the Publications Committee, noting that the R.I. Medical Journal completed the year 1966 with an operating surplus for the first time in three years. He also cited the excellence of the Journal as a publication available to the membership for the printing of outstanding clinical reports by physicians from this community.

Action: A motion was made, seconded and voted that the report of the Publications Committee be accepted, and the Committee commended for the excellence of the Society's monthly publication.

Report of Economics Committee

Dr. Stanley D. Simon reported that the Medical Economics committee had not met since the previous meetings of the House, and therefore had no report to make at this time.

State Welfare Department Negotiations

Doctor Darrah reported that he had no official communications from or with the state Department of Social Welfare since the previous meeting of the House, and that he would proceed to implement the recommendations made by the House in December.

Adjournment

The meeting was adjourned at 5:58 p.m.

Respectfully submitted,

JOHN E. FARRELL, Sc.D.

Executive Secretary

In the absence of Dr. Stephen J. Hoye, Secretary

REPORT OF THE SECRETARY

Since the last regular meeting of the House of Delegates the Council has held two meetings at which the following were the actions taken:

1. Dr. Paul Conley, chairman of the Society's Committee on Medicine and Religion, was named as the Society's delegate to the AMA Conference on Medicine and Religion to be held in Chicago.
2. Drs. Francis B. Sargent and Nathan Chaset were named official delegates of the Society to the AMA Medicolegal Conference to be held March 9-11, 1967.
3. The President was authorized to name three additional delegates to join the President, the President-Elect and the Secretary as the Society's official delegates to the Council of the New England State Medical Societies. (Drs.

(Continued on next page)

- John Ham and Seebert J. Goldowsky, and the Executive Secretary were named).
4. The President, with the assistance of the Executive Secretary, was authorized to designate official representatives from the Society to the annual meetings of state medical societies in New England.
 5. The President was authorized to consider directing a letter to the membership seeking information regarding individual problems in the handling of Medicare cases, possible amendments to improve the legislation of both Titles 18 and 19 of the social security law, and for possible improvements for the processing of physicians' claims.
 6. The Council authorized the President to name a sub-committee of the Council to submit nominees for possible nomination by the Council to the House of Delegates for the four terms expiring for service as members of the Board of Directors of the Rhode Island Medical Society Physicians Service.
 7. The Council voted that each county or district medical society be urged to establish, or cause to be established, a Utilization Review Committee for extended care facilities under the amended social security law, and in the event a county or district medical society does not have sufficient professional personnel available to establish an effective Utilization Review Committee, such county or district society is urged seek the aid of the Rhode Island Medical Society in establishing an area utilization review committee which could function in two or more counties or districts.
 8. The Council approved of the efforts of the President in his negotiations with the state Social Welfare Department relative to Title 19, and requested that he continue his efforts to effect a negotiated fee schedule.
 9. The Council, for the Society, extended felicitations to Dr. Alice B. Eliot of Barrington on her 90th birthday.
 10. Approval was given for the Treasurer to transfer \$3,000 from the savings fund to the general operating fund of the Society.
 11. Since the AMA had voted to discontinue payment for the teletypewriter service in the various state medical association offices as of January 1, 1967, the Council voted not to retain the service after that date.
 12. Changes in the Agency Account relating to sale of stock, as proposed by the Trust Department of the Industrial National Bank, were approved, and the Treasurer was authorized to make the authorizations to improve the holdings of the Society.
 13. The sum of \$1,000 was voted to the Benevolence Fund, and approval was given for the Trustees of the Fund to accept contributions from members of the Society who may wish to make special contributions to this Fund.
 14. The Council voted that the fee schedules developed by the poll of the membership and used by Physicians Service for the Medicare program, not be made available to the Travelers Insurance Company for its use in payments to a specified group (railroad retirement) under the same law, but that the Company should continue its own present basis for payments; and provided further, that the Company be informed that the Society will assist through its committees with any problems that the Company may wish to refer to it relating to Medicare claims.
 15. The request of the Library Committee that it be permitted, for the Society, to seek a grant under the federal Medical Library Assistance Act, was approved.
 16. The report of the Officers of the Society, serving as a Committee on the expansion of the Executive Office, that the space in the rear of the Auditorium of the Library be enclosed (utilizing part of the bequest from the late Dr. Louisa Paine Tingley to defray the cost) to provide additional executive office space, and its recommendation that the engagement of an assistant executive secretary be deferred until some future date, was approved.
 17. Approval was given the President's appointment of an advisory committee to the state health department for its study and survey of emergency medical services in the state. The committee consists of Drs. Joseph Delfino (chairman), Joseph Karas, John Pierik, Federico Catucci, Brian Dorman, Duncan H. C. Ferguson, Martin Feldman, and Richard Perry.
 18. Dr. Robert Sarni, a member of the committee on Industrial Health, was named to fill the unexpired term of the late Dr. Walter Hayes, as chairman of the committee.
 19. Dr. Harry E. Darrah was named as the Society's official representative to the Congress on Medical Education of the American Medical Association to be held in Chicago in February.
 20. The chairman of the Committee on Public Laws, Dr. Stanley D. Davies, was commended for his excellent letter to the members of the new General Assembly expressing the offer of the Society to be of assistance in reviewing any health legislation.
 21. The Council voted to support a proposal of the Louisiana State Medical Society to disapprove the vendor payment plan under Title

(Continued on Page 210)



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HOUSE OF DELEGATES

(Continued from Page 208)

- 19 of the Social Security Law, and to urge the Rhode Island Congressional delegation to amend the law to allow direct billing.
22. The annual report of the treasurer was reviewed and approved, subject to professional audit.
 23. The Council voted to increase the honorarium to the Editor-in-Chief of the Journal in the amount of \$250 annually.
 24. Dr. Joseph Delfino, chairman of the advisory committee on emergency medical services, was named as the Society's delegate to an AMA sponsored Conference on Emergency Medical Services to be held in Chicago in April.
 25. The Council reviewed the report of proposed federal legislation that would restrict the use of trade-mark or brand name prescription drugs and it instructed the Secretary to prepare a resolution on the subject for consideration by the House of Delegates.
(See under Council Recommendation)
 26. The sum of \$100 was appropriated towards the cost of an educational conference on venereal disease to be sponsored for community leaders by the Woman's Auxiliary to the Society.

Respectfully submitted,
STEPHEN J. HOYE, M.D.
Secretary

ANNUAL REPORT OF THE TREASURER

The financial record of receipts and expenses for the calendar year 1966 is attached and made part of this report, together with the latest available analysis of the invested funds of the Society as submitted by the Trust Department of the Industrial National Bank.

The only outstanding expense is that of the federal unemployment tax which will be computed by our auditors this month. The entire financial record of the Society will be subject to professional audit by Ward, Fisher and Company at a later date, but in view of the excellence with the records have been kept I am sure that the audit will show little, if any variance with the data submitted to you at this time.

The Society started 1966 with its lowest cash operating reserve in more than twenty years, approximately \$1,600, since the balance of the cash reserve on hand at the start of 1966 was credited to the Grace Dickerman Fund and the Roswell Wilcox Fund to be used towards the cost of the publication of the history of the Society and its component associations.

A comparison of the costs of operations in 1965

and 1966 indicates a factor of spiralling costs with which we are all familiar these days. For examples, payments for employee Blue Cross-Physicians Service benefits were \$141.15 more than the previous year; donations to organizations increased this item by \$887.36 (mainly the appropriation to the R.I. Health Facilities Association); electricity costs were up \$45.84; gas, \$14.35; insurance \$55.39; legal services, \$937.75; janitorial services, \$780; journals and books \$391.88; library expenses and additions, \$1,514.05; office supplies and equipment (including cost of a new addressograph machine), \$1,223.28; printing and postage, \$1,504.71; wages, \$2,288.81; federal taxes, \$893.71; and telephone, \$93.15.

The Society operates efficiently and these costs are normal expenditures necessary for the maintenance of our library, central headquarters, and the activities in our continually increasing role in the community.

We have received several bequests in recent years and these funds have been of tremendous help to the Society. The generosity of the late librarian, Miss Dickerman, made possible long needed renovations to the reading room. The bequest of Dr. Roswell Wilcox, together with funds from the Dickerman Trust, met the cost of publishing the History of the Society and each of the District Societies, a truly vital document for this state association which is the eighth oldest state medical society in the nation. The bequest of the late Dr. Adelson has made possible the restoration of some of the valuable books in current use. Recently the estate of the late Dr. Louisa Tingley was settled and the Society received approximately \$15,000, two-thirds of which must remain in the Endowment Fund with only the resultant interest from investment to be available, while one-third is left for Library purposes and by vote of the Council is to be used to construct additional office space in the rear of the auditorium on the second floor of the Library.

It is to be hoped that many members of the Society will recognize the long-term needs of the Society and of its Library, and that they will consider the Society as a beneficiary in their wills, as did Drs. Wilcox, Tingley, Adelson, Miss Dickerman, and several others previously.

As noted in the resume of our cash receipts and expenses, we completed the year with a cash operating reserve of \$10,768.65 of which \$453.30 is allocated as the unused portion of the Dr. Adelson Fund.

The Rhode Island Medical Journal closes its books the end of January since it does not receive December advertising payments and outstanding accounts receivable until this month. However, I can report that the Journal this year has operated

in the black for the first time in three years. Currently the Journal has a cash surplus, with all 1966 expenditures accounted, in the amount of \$2,866.72. Outstanding advertising accounts total approximately \$2,129.31, thus providing a potential total cash reserve of \$4,996.03. However, the Society made a contribution of \$3,000 in 1966 towards the support of the Journal, and therefore the actual operating expense versus advertising and subscription income shows a potential net of \$1,996.03.

Respectfully submitted,

JOHN A. DILLON, M.D.

Treasurer

DIABETES COMMITTEE

The following report is a summary of the activities of the Committee on Diabetes for the year of 1966.

Diabetes detection in our state has been of high interest in recent years since Rhode Island has shown the highest death rate for diabetes mellitus in the United States. In the past two years a new trend in statewide detection and education has developed and a good number of new diabetics have been discovered. This new trend coincided with a new high level of education with the birth of the Clinical Diabetes Association of Rhode Island.

Every year more physicians display interest in diabetes detection drives and participate in more

scientific lectures dealing with endocrinology and metabolism of carbohydrates. The year of 1966 has been highly successful in diabetes detection and every year better public response is obtained, particularly at the yearly Diabetes Fair.

The Committee on Diabetes was organized in 1966 with three major sub-committees:

1) Committee for the Fair:

Chairman: Dr. Henry Izeman

Co-Chairmen: Dr. William Reeves

Dr. Tadeusz Gotlib

2) Advertising Committee:

Chairman: Dr. Albert Tetreault

Active Members: Miss Agnes Davis (Public Health Dept.), Mrs. Sadie Cedrone, Mrs. Leonard Lerner (Podiatry Society), Mrs. Beulah Noon and Mrs. John T. Barrett (Woman's Auxiliary to the R.I. Medical Society), Mr. Gilbert Debuc (R.I. Pharmaceutical Society), Alton Curran, M.D., Betty Mathieu, M.D.

3) Committee on Year Round Detection and Education:

Chairman: Jean Maynard, M.D., MPH.

Alton Curran, M.D., William Leet, M.D.,

Mr. Daniel DeMattis (Dept. of Health)

Again this year the Advertising Committee
(Continued on next page)



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...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity¹ or side effects^{2,3} and will not mask symptoms of serious organic disorders.



1. Bradley, J. E., *et al.*: J. Pediat. 38:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. 20:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. 65:311 (Feb.) 1953.



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headed by Dr. Albert Tetreault had a tremendous impact on the success of the Fair. The Advertising Committee arranged for newspaper write-ups announcing the Fair. Last year the Rhode Island Medical Society appropriated the sum of \$650.00 for investment in 30 posters to be used as billboards in several areas of the State during Diabetes Detection Week and the Diabetes Fair. These posters will be used over a five year period. Five of these posters were used around the Cranston Street Armory, where the Fair took place this year and two were allocated to the Bristol County-Barrington areas.

There were several television appearances by members of the Committee on Diabetes which were arranged by Mr. John Fogarty, Mr. Mort Blender, Mr. Griffith, and Mr. Erward Pearson. Committee members appeared on the programs: "The World Around Us" with Mr. Griffith, "Direct Questions on Diabetes" with Mr. Blender, and "The Community" with Mr. Bassett.

There were several radio announcements prior to the Fair. The Glen Laxton show featured a discussion on diabetes on Sunday, October 30, 1966 and November 6, 1966 at 11:00 p.m. Mr. Al Pereira arranged to have detailed announcements twice daily for one week prior to the Diabetes Fair on WCRO-FM, "Events of Notes."

A CHEER

arose from the tense crowd as suddenly, through the flames and smoke, a fireman appeared at the third-floor window carrying a tiny form. Swiftly he descended the ladder and placed the child in the mother's outstretched arms. "My baby!" she sobbed gratefully. "How can I ever thank you?" "Perhaps with a sparkling glass of Warwick Club Pale Dry Ginger Ale, available in the full 32-ounce quart bottle," he responded. "It sings in the glass..."



The Rhode Island Department of Health arranged several spot announcements for T.V. on the day of the Fair. The movie "How Sure Are You?" was shown at the Darlton Theatre on a few occasions for two months prior to the Fair.

There was early distribution of posters at doctors' offices, hospitals, and drug stores announcing the Fair.

There are still 14 billboard posters available at Standish-Johnson for future use.

The Committee on Year Round Detection and Education under the direction of Jean Maynard, M.D., MPH. has initiated this year a statewide detection drive which has included several population groups in different centers throughout the state. Groups tested have included the general population in different public places, a number of different industrial centers, nursing homes, and those tested at the Diabetes Health Fair.

On the day of the Fair diabetes detection was also carried out at the Bristol County Medical Society under the direction of Paulo Botelho, M.D., a member of the Committee on Diabetes. The number of blood tests done in Bristol was 143.

Year round detection has been made possible through the efforts of the Department of Health which used unopettes. For the fiscal year of 1965 to 1966 the Department of Health has done 2860 blood tests (excluding the Fair) in the different centers throughout the State as previously mentioned. These have also included capillary blood sugars sent to the State Department of Health for diabetes detection at private doctors' offices totaling 583.

The work of the Committee on Year Round Detection and Education, specifically the efforts of statewide blood testing and the work at the Diabetes Fair by the Department of Health, must be very highly commended since it has contributed to the goal of the Committee on Diabetes more than any other previous year.

The Committee for the Diabetes Fair was a very active one, under the Chairmanship of Henry Ize-man, M.D. The Fair was held on Wednesday, November 16, 1966 at the Cranston Street Armory in Providence, R.I., from 9:00 a.m. to 7:00 p.m. The Committee on Diabetes is grateful to General Leonard Holland (Adjutant General of the State of Rhode Island) for allowing the Fair to be held again at the Armory. The Committee on Diabetes is also grateful to those members of the military staff at the Armory for their cooperation throughout that day. Assisted by William Reeves, M.D. and Tadeusz Gotlib, M.D., Dr. Izeman arranged all the details of the program for the day. The Diabetes Fair consisted of exhibits from the College of Pharmacy of the University of Rhode Island in

cooperation with the Rhode Island Pharmaceutical Association, the Rhode Island Dietetic Association, the Rhode Island Heart Association, the Rhode Island Tuberculosis and Health Association, and the Rhode Island Podiatry Society. Four panel discussions were arranged for the public attending the Fair by participating member physicians of the Committee on Diabetes. The topics were presented to the public in simple language. After each panel discussion the public participated in a period of questions and answers. The Rhode Island Podiatry Society showed some interesting slides on foot complications of the diabetic.

Four times during the day of the Fair, two movies were shown to the public and these included "Diabetes and You" and "How Sure Are You?"

Again this year the Metcalf Unit provided free chest x-rays and the vast majority of those attending the Fair had chest films taken. The Fair was attended this year by more than 3600 Rhode Islanders.

Very difficult is the task of giving recognition by individual names of every representative of each cooperating agency of the Committee on Diabetes who graciously offered their time and efforts for the success of the Fair. The Woman's Auxiliary of the Rhode Island Medical Society and the Rhode Island Podiatry Society as well as the Rhode Island Dietetic Association and the Department of Public Health must be commended for their excellent work.

The total number of blood tests done at the Fair was that of 3197. Of those, 222 were positive, 73 of which were known diabetics and 149 are still under study as potential new diabetics. It is very difficult in this report to include accurate percentages or accurate numbers of newly discovered diabetics since they are still under study.

This year's financial support for the Diabetes Fair was obtained by the Rhode Island Medical Society as previously mentioned as well as several pharmaceutical companies and the New England Diabetes Association which donated \$50.00 for this year's detection drive.

The Committee on Diabetes in conjunction with the State Department of Health has made available the use of the unopettes for capillary blood sugars testing at the private doctors' offices, particularly those physician members of the Committee on Diabetes to further facilitate the statewide diabetes detection.

It is the hope of the Committee on Diabetes that more and more physicians and individuals concerned participate more actively in future years in diabetes detection and education. This participation has definitely increased in recent years as seen by

the increase in the activities of the Committee on Diabetes, by increased detection and by the public response.

On Monday, November 14, 1966 and as opening event of the Diabetes Week, the Committee on Diabetes was able to offer a lecture given by Dr. Alexander Marble, M.D. — Associate Clinical Professor of Medicine, Harvard Medical School; Physician, Joslin Clinic and New England Deaconess Hospital; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Massachusetts — to Rhode Island physicians and interested members of the Committee on Diabetes. The scientific presentation was "Factors Influencing Insulin Secretion." The scientific presentation was most interesting and was attended by a number of Rhode Island Medical Society physicians.

CLINICAL DIABETES ASSOCIATION OF RHODE ISLAND

The Clinical Diabetes Association of Rhode Island was established in September 23, 1965 and since then, several members of the Medical Society and other affiliated fields have joined. The objectives of the Association are those of continuing education in the field of endocrinology, metabolism, and research. With that goal in mind, several scientific lectures have been held in the past year. Lecturers have included:

(Continued on next page)

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Dr. Robert Parks, Jr., Professor of Science at Brown University.

Dr. Jacob Dyckman, Chief Pathologist, Miriam Hospital; Associate in Pathology, Boston University School of Medicine.

Dr. Jordan J. Cohen, Director of the Division of Renal Diseases and Associate in Medical Research, Rhode Island Hospital; Assistant Professor of Medicine, Brown University.

Dr. Toichiro Kuwabara, Assistant Professor of Ophthalmology, Howe Laboratories, The Massachusetts Eye and Ear Infirmary, Boston.

Dr. John Fain, Assistant Professor of Medical Science, Brown University, Division of Biological and Medical Sciences.

Dr. John Gilman, Physician at Rhode Island Hospital.

Dr. Lester Soyka, Instructor in Pediatrics, Harvard Medical School; Assistant in Pediatrics, Massachusetts General Hospital.

Dr. Edward Tolstoi, Professor Emeritus of Clinical Medicine, Cornell University Medical College; Consulting Physician, New York Hospital.

The officers of the Clinical Diabetes Association of Rhode Island have the hopes that more Rhode Island physicians participate in these lectures and in the exchange of new ideas and concepts which will further our knowledge in the field of diabetes.

The Annual Symposium on Diabetes Mellitus offered by the New England Diabetes Association was held on March 19, 1966 on the Brown University campus. This program was a "first" offered by the New England Diabetes Association and was supported by the Rhode Island Medical Society and the Rhode Island Department of Health. This scientific presentation was offered by outstanding physicians in the field of diabetes in the United States. They included: Robert H. Williams, M.D., Stefan S. Fajans, M.D., Ira G. Wood, M.D., and William H. Daughaday, M.D. This high level of scientific presentation was attended by a large audience representing physicians throughout the New England states.

I want to express my sincere gratitude to the Rhode Island Medical Society and to all the co-operating physicians for their support and help which made it possible for me to accomplish all the Committee activities throughout the past two years as chairman.

Respectfully submitted,
BLAS MORENO, M.D.
Chairman

COMMITTEE ON THE FUTURE OF THE PRIVATE PRACTICE OF MEDICINE

A Proper Procedure for Certification and Recertification

On October 13, 1966, the House of Delegates of

the Indiana State Medical Association passed a resolution urging all physicians within the state to refrain from signing certifications of the medical necessity of hospitalization for Medicare patients. As we reported to the previous meeting of the Rhode Island House of Delegates, Arthur E. Hess, Director of the Bureau of Health Insurance of the Social Security Administration, telegraphed Milford O. Rouse, M.D., President-Elect of the AMA on July 8, 1966, that forms, separate from the hospital chart, are not necessary for certification and recertification according to P.L. 89-97. We now have official confirmation of this fact on a local level also, in a letter of November 9, 1966 from Armand P. Leco, Assistant Director in Charge of Hospital Affairs, Rhode Island Blue Cross-Physicians Service, to Wayne M. Henry, Director of Roger Williams General Hospital. In said letter Mr. Leco states: "*It most certainly is permissible to use the method and procedure that you have indicated and employment of a rubber stamp.*"

The method to which Mr. Leco refers consists of rubber stamping of certification and recertification statements on the admission and progress notes at the appropriate times by the hospital's ward secretaries. These serve as reminders to the attending physician to include the required information in his admission or progress note which will then form a part of the permanent record. If, for auditing expediency, the hospital administration also wants to file a separate form of its own, containing said information *without the physician's signature*, it can do so. Thus the law is satisfied, Blue Cross is satisfied, the principled physician is satisfied and a reasonable hospital administration should be satisfied.

According to the Social Security Administration Hospital Manual, page 27, (Chapter II, Section 277), rubber stamps containing the information required for certification and recertification would appear as follows:

A. Certification (stamped on admission note):

Date
This admission is medically necessary.
Signed

B. Recertification (stamped on progress notes before the 14th, 21st, 51st, 81st etc. every 30 hospital days or less thereafter):

Date hospitalization for about more days is needed because Type of post-hospital plans contemplated are (if none, so state):
Signed

The physician merely fills in the blanks and the information becomes part of the permanent record where it can serve as an excellent source for future medical care appraisal studies (see our committee report on pp 484 and 486 of the August, 1966 issue of the *Rhode Island Medical Journal*). *This procedure also prevents the unwarranted practice, already started in some hospital administrative offices, of asking medical staff members to sign a pack of blank certification and recertification forms to keep on hand for future use.* This, of course, is like signing a post-dated check and illustrates the ridiculous hypocrisy of this requirement in P.L. 89-97.

Until such time as this fault can be struck from this "Law of the Land," certification and recertification statements, signed by the physician, must be kept a part of the *permanent medical record* where the legality of the statement cannot be questioned. *A separate form justifying a hospital stay for purposes of remuneration, with a physician's signature on it makes him vulnerable to legal action for collection of such remuneration if the evidence to back up his certification (i.e., the hospital record), happen somehow to get lost, and the third party insurer refuses to pay in the absence of such evidence.*

Placed in proper perspective, then, which responsibilities must reside with each party, namely: the patient, the physician, and the hospital?

The patient, because he receives medical services, or his agent (*not* the physician), is responsible for equitable remuneration to the grantor of said services. If the patient elects a third party to insure or subsidize his payments for services rendered, he, or his responsible agent, (*not* his physician) must attest to receipt of said services in order to direct payments.

The physician is responsible to his patient for the best medical service he can provide personally and by means of managing the hospital environment and facilities for the patient's benefit. He is responsible to the hospital, *not* for his patient's bills, but for taking part in promoting high quality standards of medical care available in the hospital.

The hospital is responsible to the patient and physician for provision and maintenance of the best possible facilities and environment for the standards of medical care desired by both. Just remuneration for its costs of operation is derived from charges made to patients. If a patient elects to be partially or completely insured or subsidized by a third party, he or his responsible agent (*not* his physician) is obliged to settle the legal indebtedness, directly or indirectly, to the hospital. The hospital (*not* the physician) is responsible for the administrative details necessary for collecting such debts.

The physician has no legal nor moral responsibility for the debts of his patients unless he *willingly signs* forms which make his patient's financial affairs his own business.

In conclusion, when hospitals or third-party payers insist that a physician sign *unnecessary* forms for certification and recertification, they seek not only to force him to become legally vulnerable to responsibility for paying his patient's hospital debts, but also to force him to take time from his professional responsibilities in order to perform their own administrative duties. Unless checked now, this process will expand and lead to degeneration in medical care as the physician gradually becomes, more and more an administrative agent of the state, rather than what he chose to be, the professional servant of the sick. His voice will become mute regarding standards to be maintained in the provision of medical care, and mute, as well, regarding the worth of his own services, as distant state planners increasingly dictate these values according to political expediency. The medical profession is thus being coaxed to cooperate in its own demise. How often have we heard the cliché: "After all, it is the Law of the Land!" The moral implications become obvious. This committee, therefore, urges all Rhode Island physicians to resist this initial pressure to sign separate forms and to work, instead, with their hospital staffs for the adoption of the wholly acceptable and efficiently practical rubber-stamp method for certification and recertification until this useless requirement is finally repealed from the "Law of the Land."

ALBERT S. ANDERSON, M.D.
Chairman

CHILD-SCHOOL HEALTH COMMITTEE

The Child-School Health Committee held meetings in October and November.

The Committee is attempting to focus the medical component of school health programs in R.I. on children who would not otherwise receive evaluation. It was felt that simplification of communication.
(Continued on Page 218)

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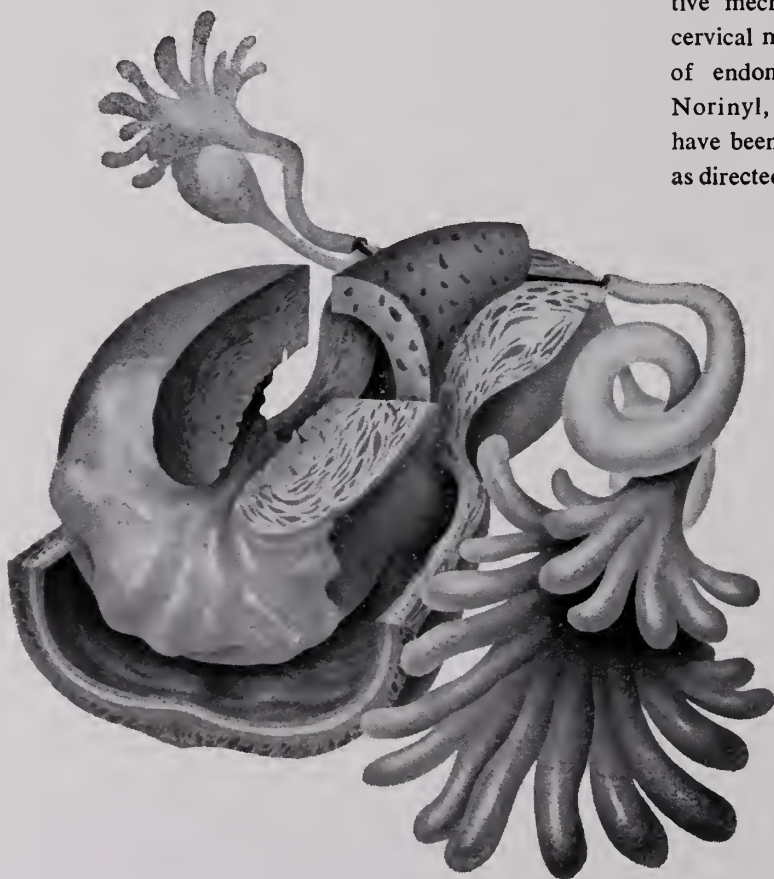
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plus important supportive benefits that help her through those critical early months of oral contraception

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Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

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An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to con-

firm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-

ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism. **Side Effects:** Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187:664 (Feb. 29) 1964. 2. Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. 3. Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. 4. Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. 5. Hammond, D. O.: Ibid. 6. Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. 7. Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. 8. Kempers, R. D.: GP 29:88 (Jan.) 1964. 9. Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. 10. Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. 11. Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. 12. Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. 13. The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. 14. Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. 15. Merritt, R. I.: Appl Ther 6:427 (May) 1964. 16. Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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HOUSE OF DELEGATES

(Continued from Page 215)

tion between parent, doctor and school would eliminate the existing reduplication of examinations. Discussions are currently being held with the Dept. of Education and Health to implement this.

Attempts are also being made by the committee to eliminate the requirements of summer camps for exams immediately preceding camp entrance. It is felt that this is medically unsound. The Committee feels that if a child has been examined during the previous year, this is sufficient. Consultations are being held with the Council of Community Services to bring about this change in requirements for more efficient utilization of medical manpower.

Medical guidelines have been proposed for Project Headstart locally in an effort to upgrade the quality of this potentially excellent program. A joint meeting was held with physicians involved in Head Start and the Regional Medical consultant of Project Headstart. Further meetings are planned.

JOHN E. FARLEY, M.D.

Chairman

MATERNAL HEALTH COMMITTEE

This is the first report that your committee has made since the article printed in the August issue of the Rhode Island Medical Journal. This report was a five-year survey of the Maternal Deaths in Rhode Island and included the years 1960-1964. The report showed that in three of these years we had the lowest mortality rate in the nation. Since then the years 1965 and 1966 have continued to show an excellent low record. There were five deaths each year and again these were due to rare and non-related causes. Two of the 1966 case studies are not quite complete at this time.

To the best of our ability we classified the 10 deaths as follows:

<i>Direct Obstetric Deaths</i>	(3)
<i>Indirect Obstetric Deaths</i>	(2)
<i>Nonrelated Deaths</i>	(5)

The Maternal Death Rate or more correctly termed the Obstetric Death Rate is the number of direct obstetric deaths per 10,000 live births over a 12 month period. Our maternal death rate for 1965 was 0.6 and for 1966, 1.2. The latest information as to the national rate that is available to us at this time is a rate of 3.6 in 1962. Thirty years ago in Rhode Island it was 40.3.

The Chairman would like to take this opportunity to thank Dr. and Mrs. Frederic Ripley for their hospitality in inviting us to their home for the 1965 meeting and to thank Dr. Ebner for being host at our 1966 meeting. The Committee would like to express its appreciation to the physicians of the state and to the record departments of the various

hospitals who have been most cooperative in helping us gather information for these case studies.

STANLEY D. DAVIES, M.D.

Chairman

MEDIATION COMMITTEE

The Mediation Committee met six times during 1966. The major item for consideration was the perennial misunderstanding, as in past years, regarding professional fees. In nearly every instance a more detailed explanation proved satisfactory to the complainant.

The two problems most anticipated did not materialize. The first was the discovery procedure resulting from legislation allowing the courts to establish new procedures. In as much as the Committee has always given the plaintiff every consideration, this procedure did not result in any inconvenience to the Committee. The second problem, the need for a special committee to be set up to investigate any alleged unethical actions by physicians rendering services to beneficiaries of the new Medicare law (Title 18 of the amended Social Security Act), never arose as not a single complaint was received by the Society in the first six months of the operation of the program.

FRANCIS B. SARGENT, M.D.

Chairman

MEDICAL ASPECTS OF SPORTS COMMITTEE

The Committee on the Medical Aspects of Sports reports with pleasure that plans are underway for another meeting to be held at the University of Rhode Island on August 17th and 18th, 1967, which again will be co-sponsored by the Rhode Island Medical Society and the University of Rhode Island. Several prominent speakers have already accepted invitations to take part in the Symposium. Donald Cooper, M.D., of Oklahoma State University will be the principal speaker for the physicians, and Kenneth Rawlinson, Head Trainer of the University of Oklahoma will be the principal speaker for the trainers.

A. A. SAVASTANO, M.D.

Chairman

COMMITTEE ON MEDICINE AND RELIGION

The Committee on Medicine and Religion of the Rhode Island Medical Society has held several informal and exploratory meetings during the past year, during which time the Committee has had the opportunity to meet with representatives of the American Medical Association Committee on Medicine and Religion and to formulate plans for inaugurating a state-wide program. The basic purpose of the Committee on Medicine and Religion is to study the relationship of physicians and clergymen and to plan meetings that will accomplish the objective of bringing members of the two pro-

fessions together to discuss the common problems in the care of patients.

The formal program of our Committee will be inaugurated at Medical Society Headquarters on February 27, 1967, at 8:00 p.m. when Rev. Dr. Paul B. McCleave will address the members of the Medical Society and selected clergymen representing the major faiths in Rhode Island, on the subject, "Physician and Clergyman Interrelationships in the Management of Social Illnesses." The address will be complemented by a panel discussion. Participating on the panel will be a psychiatrist and a clergyman. Time will be allotted for responses to questions from the audience.

It is the sincere hope of the Committee on Medicine and Religion that as many members of the Society as possible will be able to attend this fine program.

Dr. McCleave is Chairman of the Department of Medicine and Religion of the American Medical Association in Chicago, Illinois. In addition to his primary vocation as an ordained Presbyterian Minister, he has been a Chaplain in the United States Navy, with the rank of Lieutenant Commander; President of the College of Emporia, Emporia, Kansas, and holds an honorary Doctorate of Law, as well, from the University of Tulsa. He is a stimulating and engaging speaker, if past performances are a criterion, the meeting in February should be lively and informative.

PAUL J. CONLEY, M.D.
Chairman

PHYSICIANS & CARRIERS WORKMEN'S COMPENSATION COMMITTEE

The physicians & Carriers Workmen's Compensation Committee met on two different occasions to discuss cases presented by physicians to the Committee. On one occasion the entire Committee met consisting of representatives of the insurance companies carrying compensation insurance and the medical members of the Committee. The cases were discussed to the satisfaction of all interested parties. In each case the physician submitting the case for appraisal accepted the recommendations made by the Committee.

A. A. SAVASTANO, M.D.
Chairman

SCIENTIFIC WORK & ANNUAL MEETING

The Program for the May 9th and 10th, 1967, Scientific Meeting of the Rhode Island Medical Society has been completed. Howard Rusk, M.D. of world renown in the field of rehabilitation will give

the Chapin Oration. The President of the American Medical Association will be the luncheon speaker and George Harding, M.D., former President of Loma Linda University will speak at the Annual Banquet, the title of his talk being "The Doctor's Wife." The program this year will include many lectures on different subjects rather than the presentation of panels which has been the custom for the past few years.

A. A. SAVASTANO, M.D.
Chairman

First Annual Rhode Island Intern-Resident Research Day

WEDNESDAY, JUNE 7, 1967
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APRIL 7, 1967

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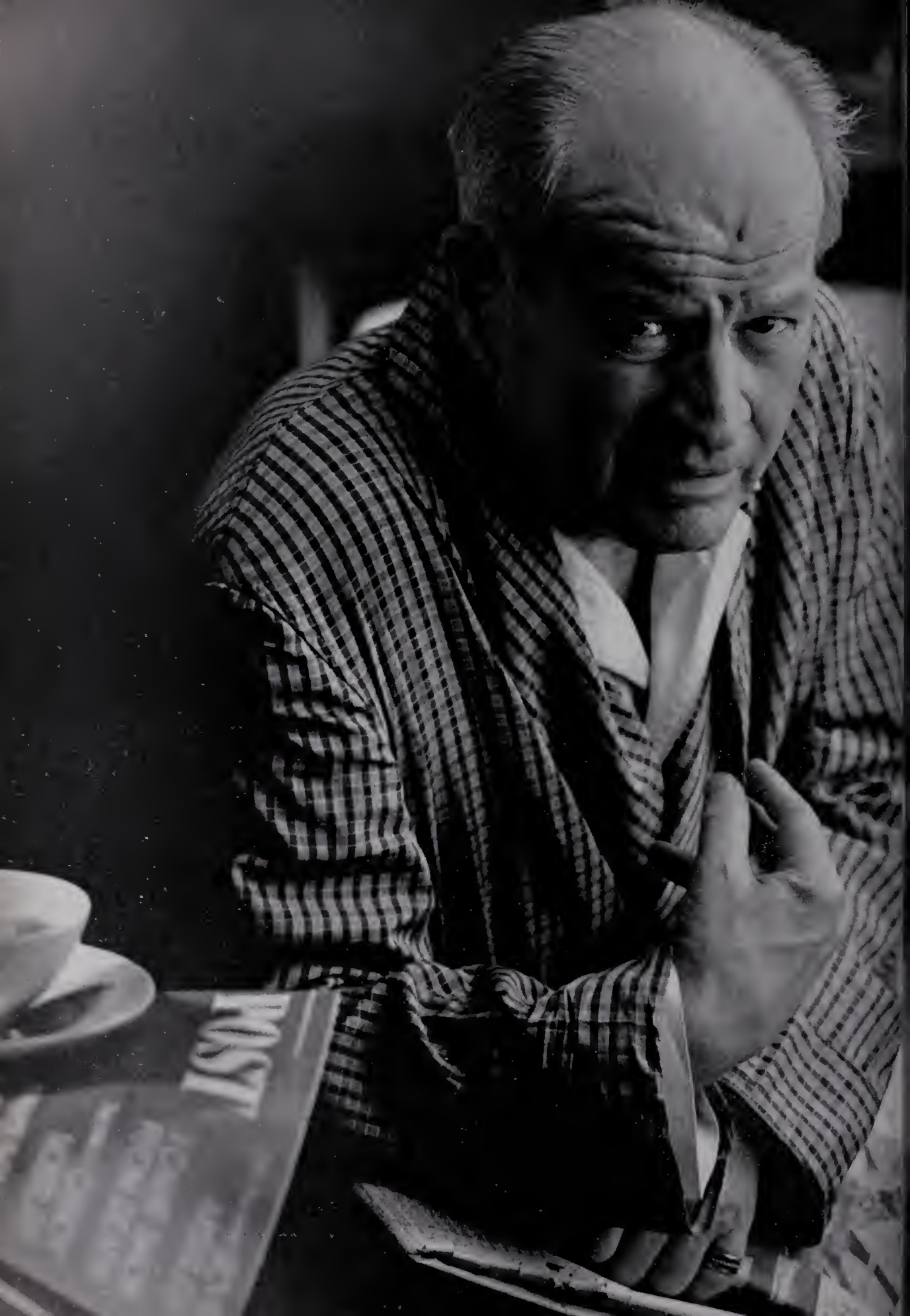
To Enter Award Program: participants must submit a brief abstract (less than one page) of proposed paper by April 7 to:

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With my heart?

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But when anxiety leads to unreasonable self-imposed limitations and restrictions . . . when it aggravates cardiovascular symptoms . . . when it interferes with restful sleep, measures to help alleviate the anxiety are probably in order.

One measure, of course, is reassurance. Another, adjunctive measure, is EQUANIL (meprobamate).

Over a decade of experience has shown that EQUANIL (meprobamate) is generally well tolerated as well as effective. Side effects are usually limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose

should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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theophylline	225 mg.
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butabarbital	25 mg.

(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

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NEW YORK ACADEMY
OF MEDICINE

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Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Warn against hazardous occupations requiring complete mental alertness. Use caution in administering to addiction-prone patients or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In elderly and debilitated and in children over five, limit dosage to smallest effective amount, increasing gradually as needed and tolerated. In general, concomitant use with other psychotropics is not recommended. Paradoxical reactions have been reported in psychiatric patients and hyperactive aggressive children. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically. Observe usual precautions in presence of impaired renal or hepatic function, impending depression and suicidal tendencies.

Adverse reactions: Drowsiness, ataxia and confusion may occur, especially in elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. Syncope occurs rarely. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis, jaundice and hepatic dysfunction) may develop occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy. Individual maintenance dosages should be determined.

Dosage: Oral—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d.

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APRIL, 1967

Medical Journal

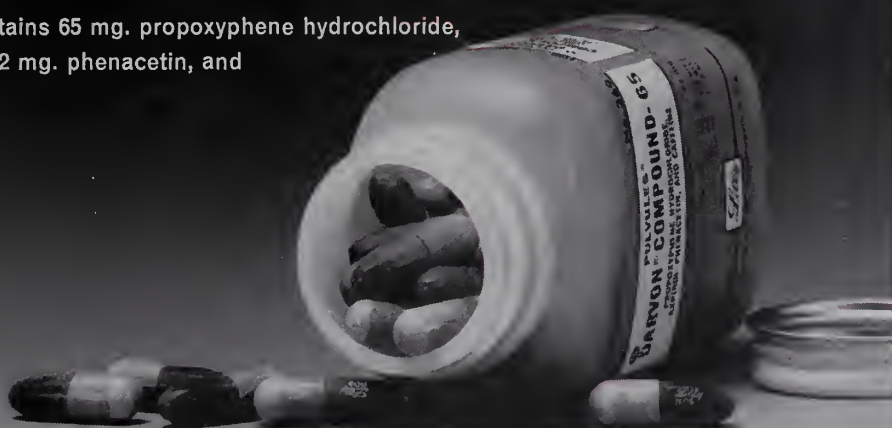
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MAY 9 and MAY 10

Vol. L, No. 4

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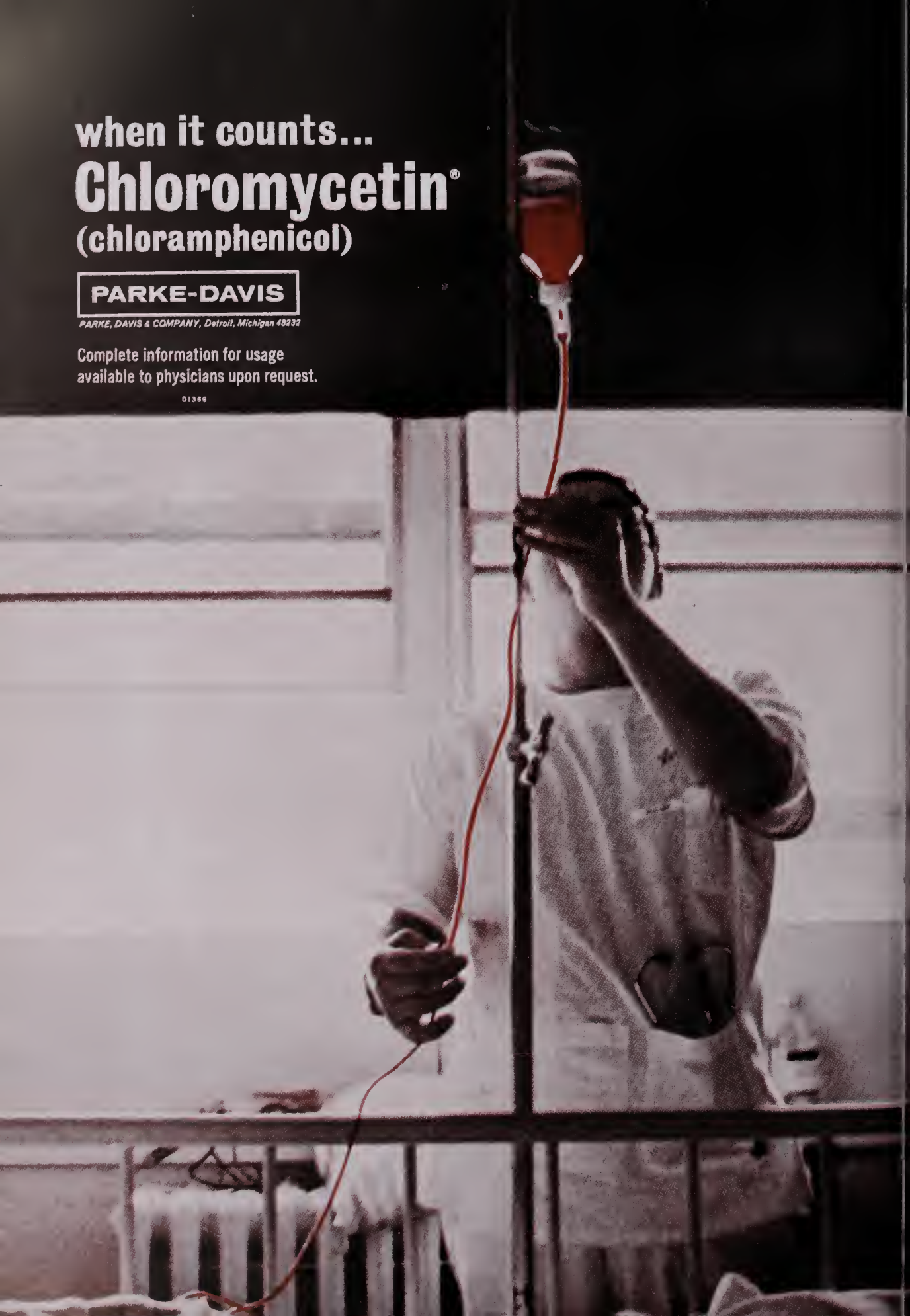
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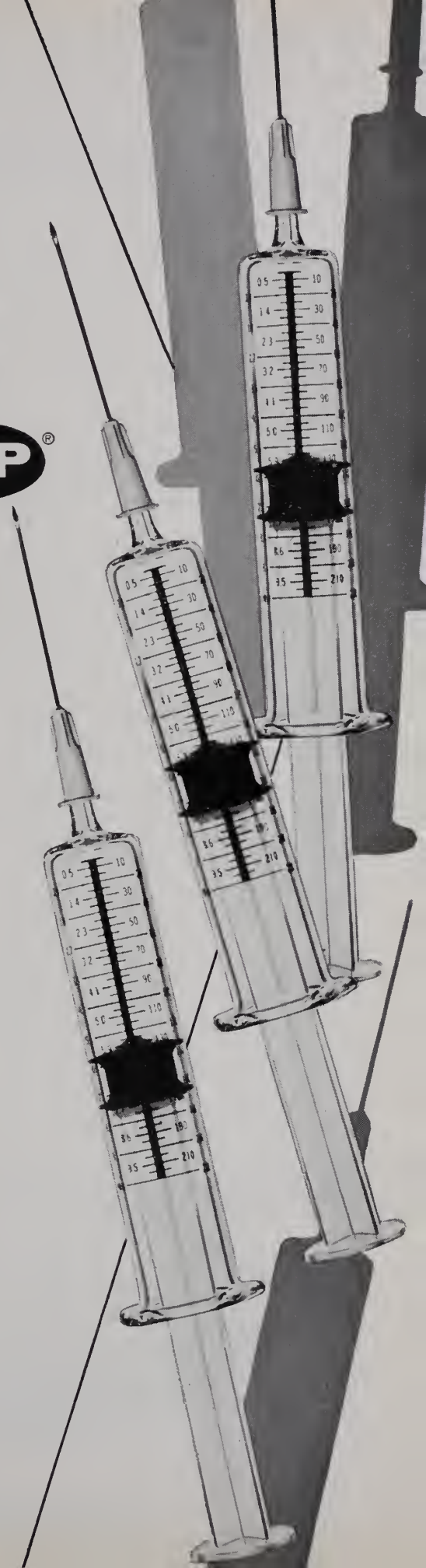
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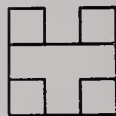
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Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

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THE WASHINGTON SCENE



A Summary Report Prepared by the Washington Office of the American Medical Association

The Department of Health, Education and Welfare stated in a special report that both hospital charges and physicians' fees increased sharply last year.

A continued increase in health care costs was predicted in the report ordered last August by President Johnson.

Drugs were not a significant factor in the recent accelerated increase in health care prices, the report said. But added that "drug prices are higher than would be if there was more vigorous competition at either the manufacturing or drugstore level."

As for the two major components in the Medical Care Index, the report said:

—Physicians' fees, which had been rising about 3 per cent a year between 1960 and 1965, went up 16.5 per cent in 1966 — the largest annual increase in 18 years.

The increase in doctor fees was attributed to a combination of basic factors: more people are seeking doctors' services more often and the number of active physicians is increasing relatively slowly." The study found no evidence that Medicare, which went into effect last July 1, was a major factor in the rise in doctors' fees.

The increase in hospital charges was attributed largely to rising wages, which account for two-thirds of hospital costs, and increases in the price of things hospitals buy. The wage rise has not been off-set by increased productivity, the report said, and rising standards of care in hospitals have required more expensive equipment and facilities.

Meantime, Robert J. Myers, the Social Security Administration's chief actuary, told the House Ways & Means Committee that hospital costs had risen much faster than the Administration anticipated since the Medicare plan went into effect. If they continue their upward spiral, the costs will eat away the safety margin included under the Medicare financing plan, Myers said.

The HEW report held out little hope for an early

end to medical price increases. However, it recommended a series of actions "to slow down these increases and to promote the efficient use of medical care resources."

Recommendations in the report included:

—Comprehensive community health care systems should be developed, demonstrated, and evaluated.

—Group practice, especially prepaid group practice, should be encouraged.

—Private and public health insurance plans should be broadened to include more alternative types of medical care.

—States should move quickly to establish and support strong health planning agencies at the state and local levels.

—Cost-reducing methods of reorganizing the delivery of services in hospitals and other providers of health services should be developed, demonstrated, and implemented.

—Federally supported health care programs should be used to train physician assistants, evaluate their performance, and disseminate the results.

—Federal funds available under the Health Professions Educational Assistance Amendments of 1965 should be used to support and encourage innovations in health professions' education and training which promote the efficient practice of medicine.

—HEW should undertake an intensive examination of frequently prescribed drugs to assess the therapeutic effectiveness of brand name products and their supposed generic equivalents.

—The Food and Drug Administration should provide doctors with authoritative information of the efficacy and side effects of all drugs.

—The HEW should call a national conference of leaders of the medical community and public representatives to discuss ways to improve the quality and efficiency of medical care delivery.

To carry out the recommendations in the report and allied directives from Johnson, HEW Secretary

(Concluded on Page 231)

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AS THE
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er, I. W., and Lowell, F. C.: New England J. Med. 261:478, 1959.

Contraindications: Patients hypersensitive to antihistamines. Not recommended for use during pregnancy.

Precautions: Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.

Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on

rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability, or excitement may be encountered.

Dosage: 1 Extentab morning and evening, or as needed.

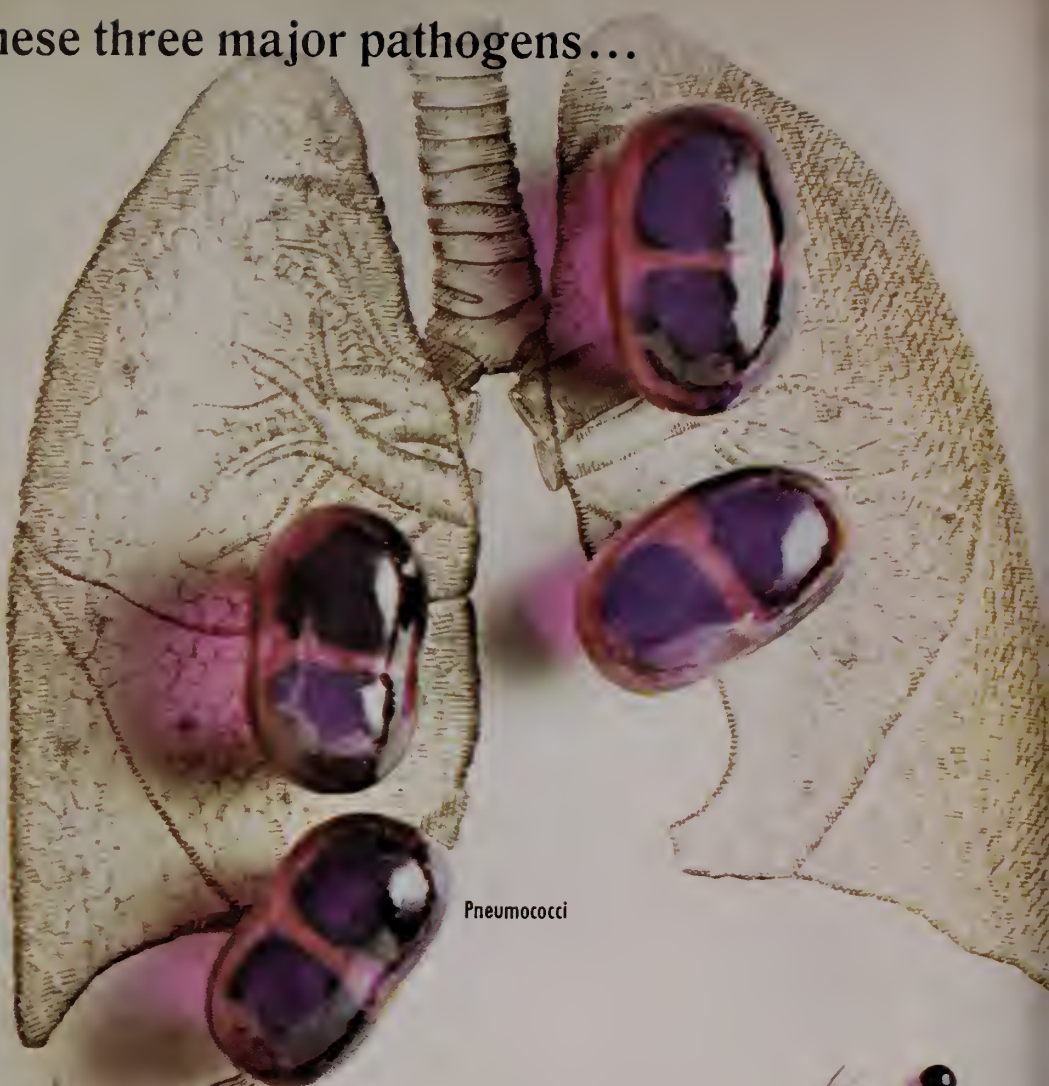
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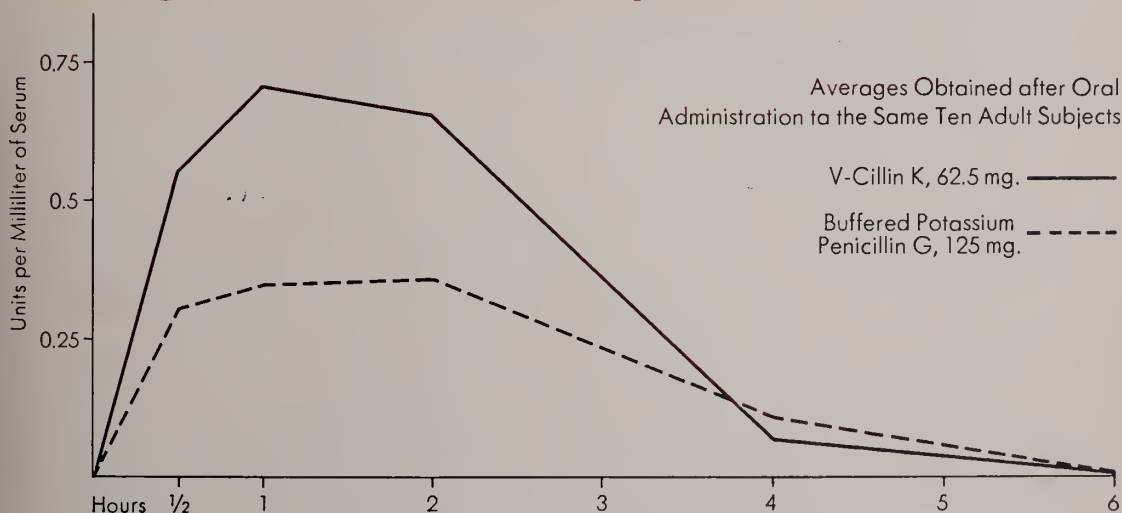
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because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive)		Streptococcus, Group A		Diplococcus Pneumoniae	
	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Claxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

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(See next page for prescribing information.)

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Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxy-methyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in

those who have previously demonstrated sensitivity to penicillin. If hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are less common with administration of oral penicillin than with intramuscular forms, skin rash, symptoms resembling those of serum sickness, other manifestations of penicillin allergy may occur. When penicillin is administered, measures for treating anaphylaxis should be readily available. Those include epinephrine, oxygen, and pressor drug relief of immediate allergic manifestations as well as antihistamines and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the growth of antibiotic-resistant organisms; in such a case, antibiotic administration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderate severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours, three doses may be employed; in females, 500 mg. every four hours, six doses are recommended. Patients with a suspected lesion of the eye should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) in bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (800,000 units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

DERMA QUIZ

by FRANCESCO RONCHESE, M.D.



Nails with holes comparable to worm-eaten old furniture or compared to the holes of a thimble.

White or yellowish or reddish irregularly shaped spots due to separation of the nail from the nail bed.

Nails raised and filled with asbestos-like debris.

For the diagnosis turn to page 296.

WASHINGTON SCENE

(Concluded from Page 230)

John W. Gardner said he would take a number of actions, including establishment of a National Center for Health Services Research and Development and calling of a national conference on medical care costs.

* * *

The American Medical Association contends there is not sufficient justification for a federal law that would ban dispensing of drugs and devices, such as eyeglasses, by physicians.

Dr. James Z. Appel, immediate past president of the AMA, outlined the AMA position in testimony before the Senate Antitrust and Monopoly Subcommittee which held hearings on such legislation (S. 260) introduced by its chairman, Sen. Philip A. Hart (D., Mich.).

The legislation appeared to stand little chance of

being approved by Congress, at least this year. Hart has unsuccessfully pushed similar legislation for the past few years.

The AMA believes that "federal legislation cannot be justified unless there is a compelling need," Appel testified. In this case, he said, "such a need does not exist."

"Organized medicine looks upon dispensing as neither immoral nor unethical in and of itself," the AMA official said. "Organized medicine believes—and the medical practice laws of the states confirm—that dispensing drugs and devices is a privilege granted to physicians in order that they may best serve the public interest.

"... American medicine condemns any abuse of privilege. But the bill under consideration would withdraw the privilege entirely, regardless of its benefits for the many, because it is abused by the insignificant few."

INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

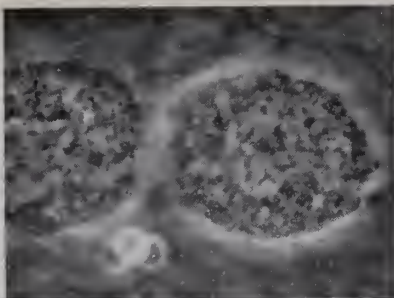


Visual evidence of how corticosteroids influence the inflammatory reaction

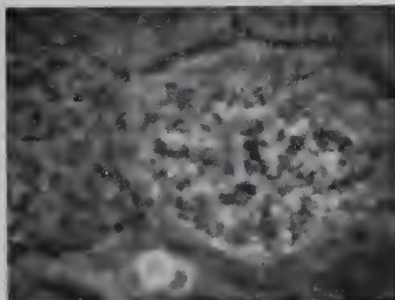
Working with phase-contrast cinematography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



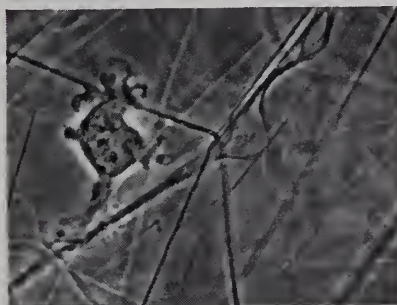
Phase-contrast microscopy showing mast cell before injury.



Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

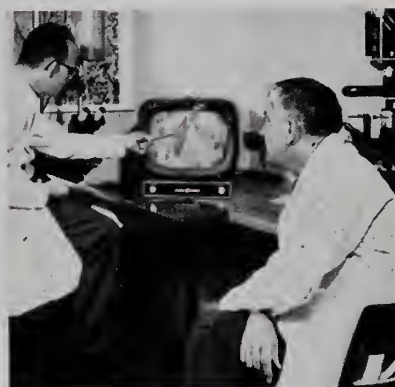
Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid—Synalar (fluocinolone acetonide)—the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.

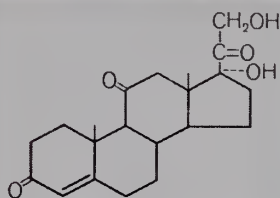


In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

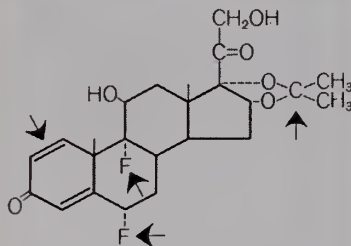
*A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more corticosteroid. And it can often do it more effectively.



Hydrocortisone

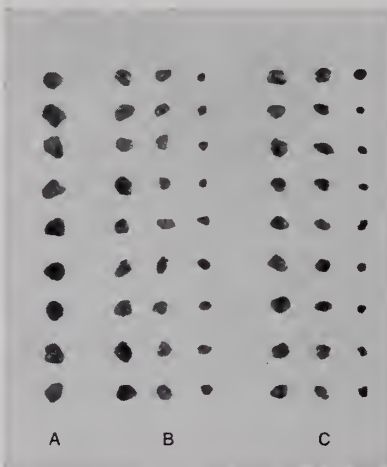


Fluocinolone Acetonide (Synalar)

- a double bond between carbons 1 and 2
- fluorine substitutions at both the 6- α , and the 9- α positions
- the addition of the acetonide at the 16- α , 17- α positions, thus providing one of the most potent topical corticosteroids available.

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY¹⁻⁴ is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B—injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C—injected with fluocinolone acetonide—but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY¹⁻⁴ also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. **PRECAUTIONS:** Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for pro-

Representative Clinical Results with Synalar*			
Efficacy Documented in over 4,000 Patients			
Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

longed periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. **SIDE EFFECTS:** Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. *Ann NY Acad Sci* 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. *Proc Soc Exp Biol Med* 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: *Methods of hormone research*, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

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Ephedrine HCl.....16 mg.

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Iodide contraindications: tuberculosis, pregnancy.

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MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

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Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?
in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.d.
(initial adult dose)

Indications: Urinary tract infections caused by gram-negative and some gram-positive organisms.

Side effects: Mainly mild, transient gastrointestinal disturbances; in occasional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild eosinophilia, reversible subjective visual disturbances (overbrightness of lights, change in visual color perception, difficulty in focusing, decrease in visual acuity and double vision), and reversible photosensitivity reactions. Marked overdosage, coupled with certain predisposing factors, has produced convulsions in a few patients.

Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function. Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

When testing the urine for glucose in patients receiving NegGram, Clinistix® Reagent Strips or Tes-Tape® should be used since other reagents give a false-positive reaction.

Dosage: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times daily) for one to two weeks. Thereafter, if prolonged treatment is indicated, dosage may be reduced to two Gm. daily. Children may be given approximately 25 mg. per pound of body weight per day, administered in divided doses. The dosage recommended above for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Until further experience is gained, infants under 1 month should not be treated with the drug.

Supply: Buff-colored, scored Caplets® of 500 mg. for adults, conveniently available in bottles of 56 (sufficient for one full week of therapy) and in bottles of 1000. 250 mg. for children, available in bottles of 56 and 1000.

References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Microbial Agents and Chemotherapy — 1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

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nalidixic acid
a specific anti-gram-negative

eradicates most urinary tract infections...

- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.
- "Excellent" or "good" response reported in *more than 2 out of 3* patients with either chronic or acute gram-negative infections.¹

*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas²... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

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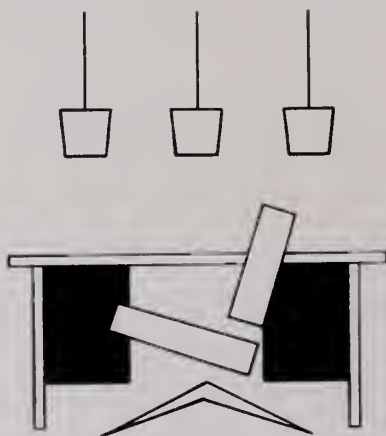
DARTING

into the street, the young man masterfully subdued the runaway horse. "Bully for you!" shouted J. P. Richly, the town banker who had watched the brave deed from the porch of his stately home. "Step up here, my boy, and let me tell you about a highly-paid position in my bank that needs a lad of your pluck. And while we talk, we'll enjoy a sparkling glass of Warwick Club Pale Dry Ginger Ale, available in the full 32-ounce quart bottle. It sings in the glass! Here..."



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Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

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Sperling, I.L.: 3 Years' Experience
with Oxyphenbutazone in the
Treatment of Rheumatic Disorders,
Applied Therapeutics 6:117, 1964.

Watts, T.W., Jr.: Treatment of Rheu-
matoid Disorders with Oxyphenbu-
tazone, Clin. Med. 73:65, 1966.

3 out of 4 osteoarthritics com-
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76.9% of 407 patients

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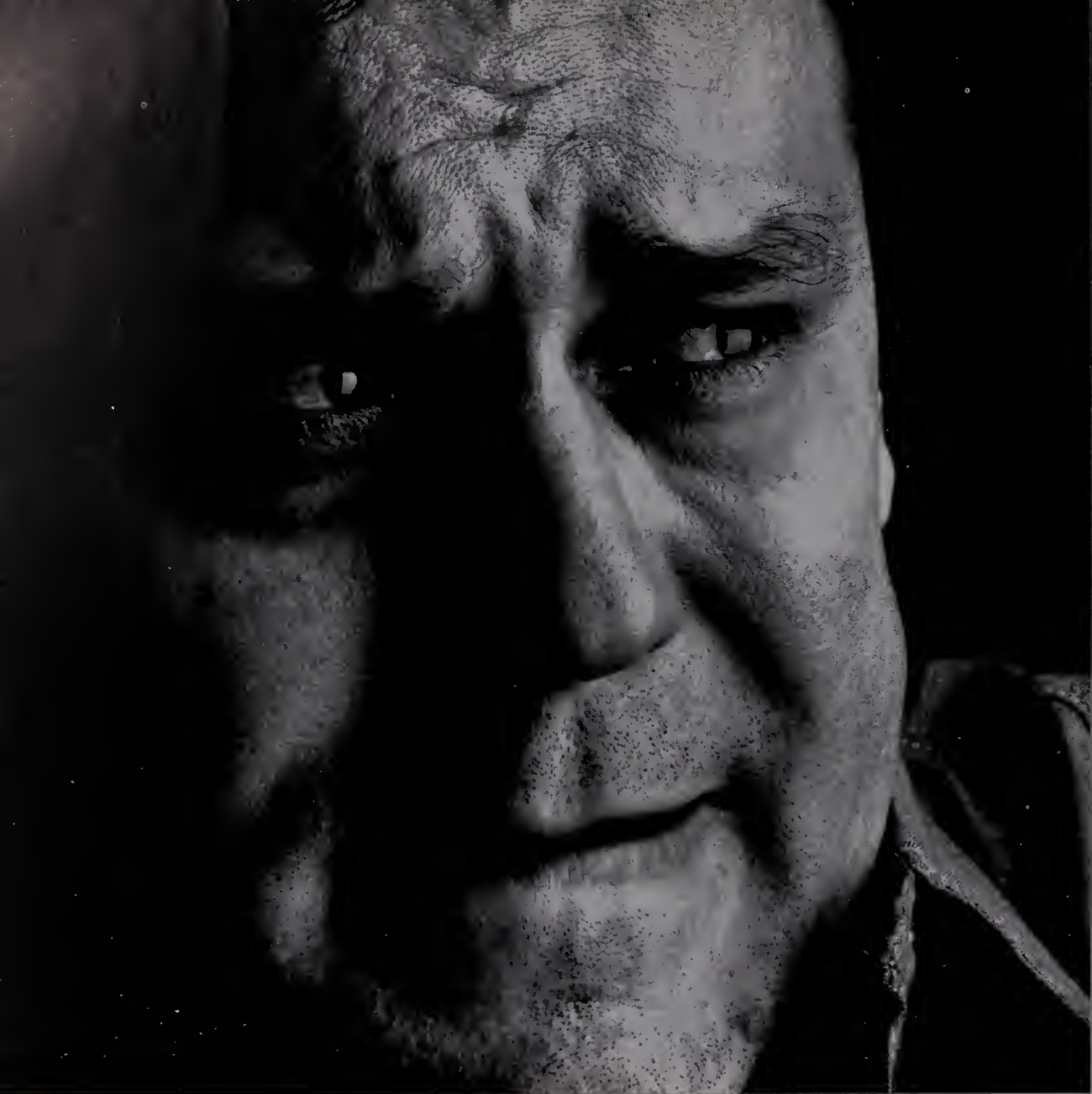


Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available; epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; anti-

histamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β -hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN•VEE® K**
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Parafon Forte helps to relieve pain,
restore mobility . . . stop pain-spasm feedback

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Non-salicylate analgesic equal to aspirin for the relief of pain,^{1,2} yet unlikely to produce the irritation to the gastric mucosa so often associated with salicylate therapy³

and a skeletal muscle relaxant shown to have up to a 24-hour span of action,⁴⁻⁶ and to retain effectiveness even on continued administration,⁵⁻⁷ but which does not have the central effects of tranquilizing compounds.

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Paraflex® (chlorzoxazone)* 250 mg.
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Cautions and side effects: Use with caution in patients with known drug sensitivity. If a hypersensitivity reaction or symptoms suggestive of liver dysfunction are observed, the drug should be stopped. Occasionally, drowsiness, dizziness, light-headedness, malaise, overstimulation or gastrointestinal disturbances may be noted; rarely gastrointestinal bleeding, allergic skin rashes, petechiae, ecchymoses, angioneurotic edema or anaphylactic reactions may have been drug associated. While *Paraflex* (chlorzoxazone) has been suspected as being the cause of hepatic toxicity in approximately eighteen patients, it was not possible to state that the dysfunction was or was not drug induced. **Dosage:** Two tablets q.i.d. **Supplied:** Scored, light green tablets, imprinted "McNEIL"—bottles of 100.

References: 1. Batterman, R. C., and Grossman, A. J.: *Fed. Proc.* 14:316, 1955. 2. Goodman, L. S., and Gilman, A., ed.: *The Pharmacological Basis of Therapeutics*, ed. 3, New York, The Macmillan Company, 1965, p. 331. 3. Roth, J. L. A., et al.: *Gastroenterology* 44:146, 1963. 4. Conney, A. H., and Burns, J. J.: *J. Pharmacol. Exp. Ther.* 123:340, 1960. 5. Settel, E.: *Clin. Med.* 6:1373, 1959. 6. Berman, H. H., et al.: *Dis. Nerv. Syst.* 25:430, 1964. 7. Darienzo, C.: *Ibid.*, 27:189, 1966.

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*U. S. PATENT NO. 2,895,877
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BOOK REVIEWS

A MANUAL OF TROPICAL MEDICINE by George W. Hunter, III, Ph.D.; William W. Frye, M.D.; and J. Clyde Swartzwelder, Ph.D. Fourth Edition. W. B. Saunders Company, Philadelphia, 1966. \$18.50

"How often will I see in New England an exotic tropical disease such as Chagas Disease?" This is a question that might be asked after a quick glance at the title of this book. However, the subjects covered in this new edition of *A Manual of Tropical Medicine* are much broader and comprehensive than indicated by the title. It could be better characterized as a textbook of infectious diseases as seen from a global perspective. The book was originally prepared during World War II mainly to meet the needs of the Armed Forces in the tropical areas. Because of this original purpose, subjects such as malaria, kala-azar, trypanosomiasis, filariasis, *E. histolytica*, and other amebic infections and similar disorders naturally are more extensively discussed. In these areas this book is distinguished from many other textbooks treating similar subjects. Actually the diseases discussed in this work go far beyond the geographical boundaries of the tropics or subtropics. Infectious diseases covered in this edition are roughly divided into the following groups: Virus Diseases, Mycotic Diseases, Protozoal Diseases, and Helminthic Diseases. To make the list complete, one will find such a diverse group of non-infectious diseases as kwashiorkor, vitamin deficiencies, kuru, and heat exhaustion. Detailed descriptions of medically important mollusks and arthropods and their control are also included. Especially convenient for laboratory personnel is the chapter on Laboratory Methods, in which various clinical tests are listed in concise form.

Various specific diseases are covered, many by guest contributors. Descriptions of the individual diseases are concise, and over-emphasis of morphological details is wisely avoided. This makes the book extremely readable and practical for practicing physicians and laboratory personnel. It is valuable also as a textbook of infectious diseases and parasitology for medical students. The list of current references after each chapter is adequate and may be of much value. That great effort has been expended by the authors to make the new edition the most up-to-date in the field is evident from the inclusion of many recent experiences in the treatment of various conditions, e.g. cholera, malaria,

and epidemic hemorrhagic fever. This is especially true for such diseases as *acanthameba*, in which pathogenicity for man was only recently established.

The greatest emphasis in the description of most diseases is on clinical diagnosis, treatment, and epidemiology, which are amply illustrated by various charts and tables. Numerous clinical photographs, drawings, and microphotographs of smears and tissue sections are of great assistance for the understanding of the diseases and their pathogens.

In summary, this fourth edition of *A Manual of Tropical Medicine* can be justifiably called a superb and most up-to-date textbook of infectious diseases and parasitology. Because of the wide range of subjects covered, its greatest value will be as a textbook in medical schools and other teaching institutions. The volume is, however, also very suitable as interesting reading material and as a quick reference work for practicing physicians and laboratory personnel.

H. TAMURA, M.D.

ARTERIOGRAPHY. Principles and Techniques. Emphasizing Its Application in Community Hospital Practice by Joseph L. Curry, M.D., and Willard J. Howland, M.D. W. B. Saunders Company, Philadelphia, 1966. \$14.00

The stated purpose of this book is to introduce the techniques of arteriography to the beginner and to show how this can be done very effectively in a community hospital. They have performed over 2,000 arteriograms during the past twelve years, primarily by a retrograde catheter technique, and have done an unusually large number of selective carotid arteriograms. Their various techniques have been described in detail and their complications reviewed. Recommendations for equipment have been included. Although most of this material has been presented in the literature before, the authors have introduced some ideas and experiences of their own, making it a worthwhile book for the more experienced angiographer.

Many different areas of arteriography have been covered, including the lumbar and thoracic aorta, the renals, the carotids and vertebrals, as well as peripheral vessels. The illustrations, tables, and diagrams on the whole are clear and self-explanatory. The reader is expected to refer to the many other articles and books available for greater detail about

(Continued on Page 243)

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



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METHYCHLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.25 MG.

ENDURONYL FORTE
METHYCHLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.5 MG.



	Minimum	Usual	Intermediate	Maximum
DAILY DOSAGE RANGE	 2.5 mg. methyclothiazide 0.125 mg. deserpidine	 5 mg. methyclothiazide 0.25 mg. deserpidine	 7.5 mg. methyclothiazide 0.375 mg. deserpidine	 10 mg. methyclothiazide 0.5 mg. deserpidine
DAILY DOSAGE RANGE	 2.5 mg. methyclothiazide 0.25 mg. deserpidine	 5 mg. methyclothiazide 0.5 mg. deserpidine	 7.5 mg. methyclothiazide 0.75 mg. deserpidine	 10 mg. methyclothiazide 1 mg. deserpidine

See Brief Summary on final page of advertisement.

Eutonyl affords a different kind of basic therapy for moderate to severe cases



Effect tied to reduced peripheral vascular resistance; no central depressant action

Eutonyl is a unique nonhydrazine agent. It is reported to act by reducing peripheral vascular resistance, with little or no effect upon cardiac output.^{1,2}

In clinical trials, significant reductions in mean blood pressure were seen in 84% of patients studied—including some unusually difficult cases. Eutonyl lowers diastolic in proportion to systolic, and in half of the cases studied, reductions in the sitting and recumbent positions were nearly as great as in the standing position.

Most important: There is no central depressant action. In fact, many patients reported an *increased* sense of well being.

Here, then, is a highly effective *basic treatment* for moderate to severe cases—and one that will not hamper your patient with lethargy or drowsiness while on treatment.

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EUTONYL[®]
PARGYLINE HYDROCHLORIDE



DAILY
DOSAGE
RANGE

Minimum



10 mg. tablet

Usual starting



25 mg. tablet

Intermediate



50 mg. tablet
or as needed

Maximum



200 mg.

1. Brest, A. N., et al., Cardiac and Renal Hemodynamic Response to Pargyline, *Ann. N. Y. Acad. Sci.*, 107-1016, 1963.

2. Winsor, T., Pargyline Hydrochloride, Hypertension, Urinary Tryptamine, and Vascular Reflexes, *Geriatrics*, 19:598, Aug., 1964.

See Brief Summary on final page of advertisement.

Eutron adds thiazide for enhanced therapy with milder side effects



Only a 7/4 mm. span between standing and recumbent pressures—reduced chance of orthastatic hypotension

The combining of Eutonyl and Enduron in Eutron permits a significantly greater antihypertensive effect than with either agent used alone. This in turn may allow therapeutic success with lesser dosage—and correspondingly milder side effects.

Indeed, fully 94.5% of all patients studied during clinical trials continued on therapy uninterrupted by side effects.





Most striking was the drug's action in lowering blood pressure to *nearly equal levels in all body positions*. Total average spread between standing and recumbent readings (after treatment) was only 7/4 mm. Hg.

Thus, in your moderate to severe cases, Eutron affords a usually smooth course of therapy, with reduced likelihood of orthostatic effects. And, because of the thiazide component, Eutron may be used in the presence of congestive heart failure.

Once a day, every day

EUTRON™
 PARGYLINE HYDROCHLORIDE 25 MG.
 WITH METHYCHLOTHIAZIDE 5 MG.



	Minimum	Usual starting	Intermediate	Maximum
DAILY DOSAGE RANGE	 <p>12.5 mg. pargyline hydrochloride and 2.5 mg. methyclothiazide</p>	 <p>25 mg. pargyline hydrochloride and 5 mg. methyclothiazide</p>	 <p>37.5 mg. pargyline hydrochloride and 7.5 mg. methyclothiazide</p>	 <p>50 mg. pargyline hydrochloride and 10 mg. methyclothiazide</p>

ENDURON[®]

METHYLCLOTHIAZIDE

ENDURONYL[®]

Each tablet contains Methyclothiazide 5 mg.
with Deserpidine 0.25 mg. or 0.5 mg.

Indications: Enduron is used to control edema and mild hypertension. Also used with other drugs for hypertension. Enduronyl is used in mild to moderately severe hypertension.

Contraindications: Neither Enduron nor Enduronyl should be used in severe renal disease (except nephrosis) or shut-down; in severe hepatic disease or impending hepatic coma; in patients sensitive to thiazides. Enduronyl is contraindicated in severe mental depression, active peptic ulcer, and ulcerative colitis.

Warnings: Consider possible sensitivity reactions in patients with a history of allergy or asthma. Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small bowel lesions; if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical.

Precautions and Adverse Reactions: Use thiazides with caution in severe renal dysfunction. Caution is also necessary with impaired hepatic function or progressive liver disease. During intensive or prolonged thiazide therapy, watch chloride and potassium levels (especially the latter if patient is on digitalis). In surgical patients, thiazides may alter response to vasopressors and tubocurarine. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism are possible in certain newborn). Occasional thiazide side effects also include blood dyscrasias; elevations of BUN, serum uric acid, or blood sugar; electrolyte imbalance, g.i. disturbances, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, pancreatitis, and gout.

Use Enduronyl with caution in patients with a history of peptic ulcer, as rauwolfias may increase gastric secretion. Discontinue at the first sign of mental depression. Rauwolfias may increase hypotensive effects of surgery or anesthesia, and are best discontinued two weeks prior. They also lower the convulsive threshold in epilepsy. Other possible rauwolfia side effects include drowsiness, nasal stuffiness, nausea, weight gain, and diarrhea. Less frequent complications of deserpidine therapy are aggravation of peptic ulcer, epistaxis, and skin eruption. Alcohol, barbiturates or narcotics may potentiate action of deserpidine.

EUTONYL[®]

PARGYLINE HYDROCHLORIDE

EUTRON[™]

Each tablet contains Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for use in patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone.

Contraindications: Pheochromocytoma, advanced renal disease, paranoid schizophrenia and hyperthyroidism. Until further experience is gained, not recommended for use in

patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. Interval of two weeks should separate therapy and use of these agents.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When necessary to administer alcohol, narcotics (meperidine should be avoided), anti-histamines, anesthetics, barbiturates, chloral hydrate and other hypnotics, sedatives, tranquilizers, or caffeine, these can be used cautiously at a dosage of 1/4 to 1/5 the usual amount. Adjust dose of anesthetic agents to response of patient. Avoid parenteral administration where possible. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or other evidence of coronary disease should not increase physical activity. Pargyline may lower blood sugar. Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions; if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver dysfunction or progressive liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields, and fundi.

During intensive or prolonged methyclothiazide therapy, watch chloride and potassium levels (especially latter if patient is on digitalis). Methyclothiazide also may reduce arterial response to pressor amines. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism are possible in certain newborns). Thiazide drugs may increase responsiveness to tubocurarine.

Side Effects: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extra-pyramidal symptoms have been reported. Drug fever is extremely rare. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Thiazide side effects also include blood dyscrasias, elevation of BUN, serum uric acid, or blood sugar, electrolyte imbalance, g.i. disturbances, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, pancreatitis, and gout. Nocturia has been observed with the combination.



BOOK REVIEWS

(Continued from Page 242)

the many subjects covered. Adequate, although far from complete, references have been given in a bibliography after each chapter.

This volume is recommended as a good introduction for radiologists and other specialists interested in angiography, particularly those interested in developing this field in a community hospital.

BARBARA L. CARTER, M.D.

CURRENT PRACTICE IN ORTHOPAEDIC SURGERY 1966. Edited by John P. Adams, M.D. Volume 3. The C. V. Mosby Company, Saint Louis, 1966. \$18.75

The editor has again compiled an excellent volume comprising many orthopedic topics. The organization of this edition represents an improved departure from the previous volumes. It begins with an interesting historical section, follows with a comprehensive four part section on Cerebral Palsy, and ends with a variety of excellent orthopedic topics.

Although many readers will find this material previously expounded in the periodical literature, it does present an interesting review and is well worth the surgeon's perusal.

HENRY M. LITCHMAN, M.D.

CONDITION CRITICAL: OUR HOSPITAL CRISIS by Edwin P. Hoyt. Holt, Rinehart & Winston, New York, Chicago & San Francisco, 1966. \$5.95

The first bit of advice that one should give to a person who wishes to read this book is to tear up the jacket and throw it away, as the statements on its folds provide an entirely erroneous idea of the contents of the book. It is true that the inadequacies of hospital care of patients are pointed out where they exist; but at the same time credit is given to the work of hospitals, which despite all the difficulties with which they must contend still do a good job. It seems clear that the statements on the jacket are designed to sell the book. The idea that sensational criticism of present-day medical care, a popular occupation since the de-beatification of the doctor, would increase the sale of the book is doubtless correct, but it does not reflect credit on the publisher or the author.

In the first chapter many of the conditions which make ideal care of the population of the country difficult are reviewed. There are included overcrowding and shortage of hospital beds, of nurses, and of physicians. Also mentioned is the scarcity of medical and x-ray technicians and of practical nurses. That medicine in the United States is not as good as could be desired is, the author believes, evidenced by the death rate, including infant mor-

tality, which is considerably higher than it is in many other countries, especially those in which the government has more responsibility for patient care than is the case in the United States.

The three types of hospitals — voluntary, government, and proprietary — are discussed in the next three chapters. In the first it is clearly pointed out that hospitals face grave financial difficulties due, among other things, to the constantly rising price of standard supplies and equipment but also to the very high cost of purchasing and operating the complicated and highly specialized devices that are required in carrying out up-to-date patient care. The discussion involves many hospitals and ranges from the difficulties of the Massachusetts General Hospital, where patient care is probably nowhere excelled, to the work of community hospitals of 100 beds or less.

There is a chapter on government hospitals in which the great variation is pointed out. The general conclusion is that "at the state and local level the public has received just about the kind of hospitalization it is willing to pay for."

In the discussion of the group of "hospitals for profit" it is pointed out that, although some of them are excellent and accredited, many, especially a number of the smaller ones, provide care of patients that is below standard, while unnecessary admissions and operations have been disclosed.

The facts concerning nursing homes and their relation to hospitals are reviewed. These are quite well known to the profession, as are the steps which are being taken in an attempt to improve the situation. The disagreement between the American Hospital Association and the American Medical Association is discussed, but the status and activities of the Joint Commission on Accreditation of Hospitals, in which both are represented and which has taken over the nursing home problem, are not clearly described. In the opinion of this reviewer it is all very well to make adequate rules for the proper care of patients in nursing homes, with a graduate nurse always on duty, trained personnel, and the like, but when such people are not available — as is often the case — the net result must be the elimination of the inadequate nursing homes with nothing to take their place. This is a situation which cannot be corrected by making rules, which do nothing to bring about an increase in the number of trained individuals.

The remaining chapters of the book will be of some interest to lay readers but do not add much to the information of physicians. However, the "need for full-time specialists in hospital administration" as advocated by Dr. Snoke of the Yale-New Haven Hospital is discussed in a chapter entitled "Conflicts in Administration," which is worth

(Continued on Page 248)

**How long will
it take her
to recover from
her hip fracture
if she just
doesn't care?**



**Does she really care?
Is she alert, encouraged,
positive and optimistic
about getting completely
well soon?**

**Or has she given in to
the demoralizing impact
of confinement, disability
and dependency?**

**When functional fatigue
complicates convalescence,
Alertonic can help...**

Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that can often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

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Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B₁) (10 MDR*), 10 mg.; riboflavin (vitamin B₂) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B₆), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.

†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

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BOOK REVIEWS

(Continued from Page 243)

reading. In the same chapter the passage of the Medicare legislation, with the attendant disagreement between the A.H.A. and the A.M.A., receives attention.

There are two chapters entitled "The Patient and the Hospital" (I & II). The first of these discusses some of the inevitable failures to give patients the comforts, prompt attention, and services which they expect. The second describes various accidents and mistakes that have occurred in some hospitals — hospitals from which, strangely enough, the possibility of human error has not been entirely eliminated! (Even with the handicap of shortage of personnel in the opinion of this reviewer, such accidents are surprisingly rare). Suits for malpractice are discussed; it is noted that a number of these accidents cannot in any sense be attributed to lack of proper care of the patient.

The chapter on "Labor" is of some interest, as are the two entitled "Who Pays for What" and "How the Hospital Gets Paid." Chapter 10 on "Special Services" is worth the attention of lay readers as the special departments, such as Pathology, x-ray, and Physical Therapy are described, and also organization and equipment required for the care of emergencies.

The final chapter on "The Future of the American Hospital" does not add much to one's understanding of the present situation nor to the measures needed to bring about improvement. To the physician who reads the book and has given the general situation careful thought, certain things are clear. Although there are additional factors, such as the lack of coordinated planning between hospitals and occasional errors in organization and regulation of their work, these are relatively minor matters. The essential facts are (1) That modern medical research has resulted in techniques in diagnosis and treatment which are very expensive and require the services of many people and elaborate equipment. (2) That anything less than the use of these techniques results in patient care that is less than first class. (3) That Federal and other agencies support and encourage continued researches which increase the knowledge of the causes and cure of disease but do essentially *nothing* to bring about an increase in the number of people who can apply the results of these researches to the care of patients. (4) The resulting continued shortages of physicians, nurses, and other trained personnel means of course that it is impossible to give the best available care to more than a limited number of people. (5) Until the education of more and better nurses, physicians,

and other workers in the health field receives support commensurate with that given to research, the average quality of patient care in the U.S.A. will continue to be second rate and correction of the situation by legislation or even federal control will be futile.

ALEX M. BURGESS, M.D.

MANAGEMENT OF THE PATIENT WITH CANCER. Edited by Thomas F. Nealon, Jr., M.D. W. B. Saunders Company, Philadelphia, 1965. \$27.50

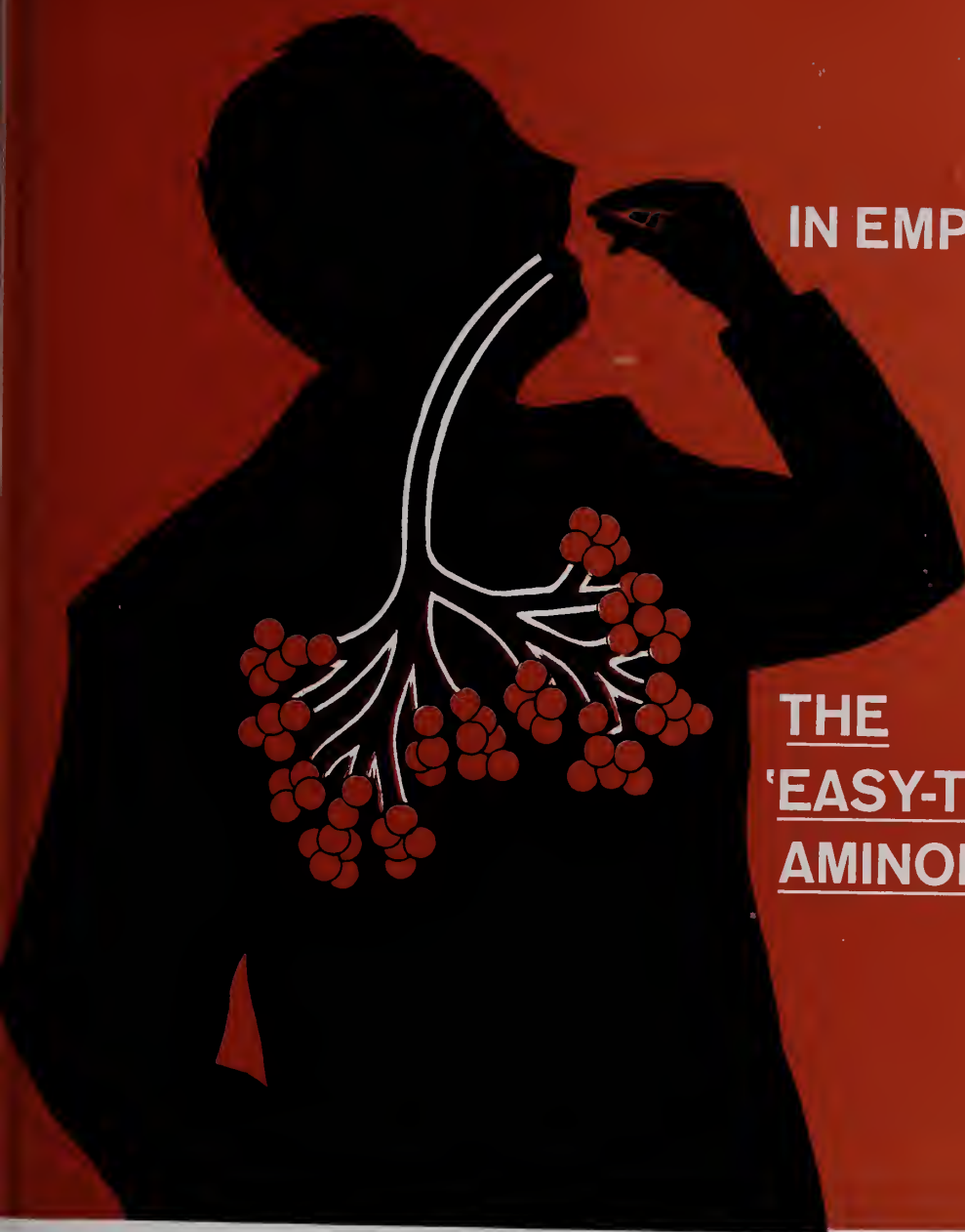
This volume edited by Dr. Nealon, Professor of Surgery at Jefferson Medical College, is an up-to-date and encyclopedic consideration of the management of the patient with cancer.

This book is divided into two parts. The first is titled General Considerations, in which specific chapters are related to the biology of cancer and to principles in regard to the treatment of cancer by the usually accepted modalities. The second part of the book consists of separate chapters relating to the cancer of specific organs or organ systems. Each chapter has been prepared by an outstanding expert in the field, usually someone of professorial rank.

I feel that this is a valuable text and one which offers readily available information to the physician who is interested in the treatment of malignant diseases. It is obvious that any single textbook cannot deal in great depth with any specific malignancy. Carcinoma of the breast, for instance, has been the subject of many texts, and a thirty-five page chapter in a book such as this can only cover the "high spots" in regard to diagnosis, pathology, prognosis, and treatment. In general, however, these specific chapters accomplish well what they have set out to do. In each area the important features of the disease in question seem to be well covered. One of the weaker spots is the chapter on "Carcinoma of the Head and Neck" in which this large subject, exclusive of the larynx and parathyroid glands, is covered in approximately fifty pages. Only cursory coverage is given to many important subjects, such as carcinoma of the tongue and nasopharynx. In a presentation such as this, there is little room for presenting alternative methods of therapy or for discussion of specific therapeutic approaches to unusual problems.

By and large, however, *Management of the Patient with Cancer* is a valuable source of information. My own approval of this volume is perhaps best shown by the fact that I have purchased a copy for my own library.

BANICE M. WEBBER, M.D.



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AMINOPHYLLINE**

Aminophylline **dura-tabs**[®]

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

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This pain is getting on my nerves.

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Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy.

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

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CHANGING CONCEPTS IN THE SURGICAL MANAGEMENT OF HEMORRHAGIC GASTRITIS

Bleeding Successfully Controlled by Vagotomy and Pyloroplasty

FRANCIS P. CATAZANARO, M.D.

The Author, Francis P. Catanzaro, M.D., of Providence, Rhode Island, Chief, Department of Surgery, St. Joseph's and Our Lady of Fatima Hospitals, Providence, R.I.

HEMORRHAGIC GASTRITIS is a relatively uncommon cause of major gastrointestinal bleeding requiring surgical intervention. While its etiology is varied, it is more commonly associated with a heavy alcoholic intake. It is not uncommon in patients on heavy doses of acetylsalicylic-acid-containing compounds, Indocin,[®] or Butazolidin.[®]

CASE REPORTS

Case No. 1. E.L., Hosp. No. 46021, O.L.F.H. This 46-year-old white male was admitted to the hospital on 11/8/65 after a sudden episode of hematemesis consisting of fresh red blood. He was found on the floor of his home by his wife. He had had no history of gastrointestinal disease. He had complained of occasional upper abdominal distress and marked nervousness and tenseness for which he had taken a tranquilizer. He had attended a wedding on the day prior to onset of hematemesis and had indulged heavily in alcoholic beverages.

On admission, the patient was pale and had a thready pulse. The hemoglobin and hematocrit on admission were 13 gm. per cent and 39 per cent respectively, but we concluded that this did not represent a true picture of the amount of hemorrhage. Intravenous therapy was started with dextrose solution and blood. After three pints of whole blood and eight hours after admission, his vascular condition was still unstable and episodic attacks of massive hematemesis, containing fresh blood, still occurred. An attempt had been made to pass a large nasogastric tube and institute iced saline lavage. This was not tolerated well by the patient, and he refused further attempts. At 9:30 in the morning, approximately twelve hours after admission, the blood pressure was 90/60, the pulse very thready, and the clinical appearance still one of marked blood loss. That morning, after three pints of blood, his hematocrit was 23. Exploratory laparotomy was deemed necessary. A gastroduodenotomy was performed first; there was no evidence of duodenal ulcer. After packing the distal duodenum,

it was evident that bright red blood was still coming from above, obviously from the stomach. The stomach was normal to palpation. A high longitudinal gastrotomy was then performed, and the gastric mucosa everted. There was an acute hemorrhagic gastritis involving two-thirds of the stomach. There was generalized bright red ooze from all surfaces. The gastroduodenotomy was closed to effect a large pyloroplasty. A bilateral vagotomy and a Stamm gastrostomy were then performed, using a large Foley catheter for the latter. The stomach was fixed to the peritoneum in the usual manner. Approximately one-half hour later the completion of the vagotomy, there was no further evidence of hemorrhage. The patient tolerated the procedure well and exhibited a stable hemotocrit and hemoglobin postoperatively until the third postoperative day when it dropped somewhat, reflecting adjustment. The patient received another pint of blood, and eventually, prior to discharge, his hematocrit was 35 per cent and hemoglobin 10 gm. per cent. The gastrostomy tube was removed on the seventh postoperative day. The patient was placed on liquid feedings approximately two days after surgery and advanced slowly to a convalescent ulcer diet prior to discharge.

The patient has been followed by his family physician who reports him to be asymptomatic with no further evidence of gastrointestinal bleeding.

Case No. 2. D.D., Hosp. No. 31908, O.L.F.H. This 61-year-old white male was admitted to the hospital for the fourth time on 7/18/63 with a history of having had a gastric resection in October of 1961 for hemorrhagic gastritis. He was readmitted on 9/17/62 with a chief complaint of rectal bleeding and fainting spells. On admission at that time his hematocrit was 34 per cent. He received one pint of blood, showed no further evidence of bleeding, and was discharged. On January 3, 1963 he was readmitted because of tarry stools with a hematocrit of 37. He was not transfused, but was placed on a bland diet, antispasmodics, and antacids. He showed no other evidence of bleeding and was discharged to be followed at home. On all pre-

(Continued on next page)

vious admissions, the upper gastrointestinal series were within normal limits, showing an adequately functioning stoma and no evidence of ulceration. The ex-ray studies were repeated on the fourth admission and again showed a normal upper gastrointestinal tract with a normal functioning stoma. Hematocrit on admission was 24 per cent with 8.2 gm. per cent of hemoglobin. He received one pint of blood each on the first, third, and fourth days of hospitalization, but continued to have tarry stools and a fast pulse. His hemoglobin on the fourth day after admission was still 9 gm. per cent and his hematocrit 31 per cent. He was taken to surgery on 7/25/63. Exploration revealed negative findings. The stomach was opened longitudinally; the mucosa was studded with multiple discrete superficial lesions with a small amount of bloody oozing. The gastrotomy was closed, and bilateral vagotomy performed. The patient tolerated the procedure well and had an uneventful postoperative course. The hematocrit and hemoglobin stabilized immediately after surgery. He was placed on liquids 48 hours after surgery, advancing to a bland diet. He was discharged on his seventh postoperative day. He has been followed at six month intervals and is now back to his original occupation of bus driving. He has had no further episodes of gastrointestinal bleeding.

Case No. 3. M.P., Hosp. No. 69665, S.J.H. This 59-year-old white nun was transferred to the hospital on 2/19/66 from another hospital with massive gastrointestinal bleeding. Her blood studies on admission showed a hematocrit of 12 per cent and a hemoglobin of 4.6 per cent. Patient's general condition showed evidence of marked blood loss. Blood pressure on admission was 90/0, and pulse 130. Examination of the abdomen was essentially negative. There was no history of gastrointestinal disease. A known arthritic, she had been treated with steroids about two years prior to admission. She had not been on any steroids recently, but had been taking heavy doses of acetylsalicylic-acid-containing compounds for relief of pain from her arthritis. She received two pints of blood on her first hospital day. On the morning of the second day her hematocrit was reported as 19.5 per cent with 7 gm. per cent of hemoglobin. On the evening of the fourth hospital day, after having received four more units of blood, her hematocrit was reported as 23.5 and hemoglobin 8.1 gm. On the morning of the fifth hospital day the patient was explored. The findings at the time of exploration were consistent with a generalized hemorrhagic gastritis involving the entire stomach with very active bleeding at the time of gastrotomy and gastroduodenotomy. Bilateral vagotomy and pyloroplasty were performed together with a Stamm gastrotomy.

Patient received one pint of blood during the procedure and one pint of blood in the recovery room. That evening hematocrit was 32 and hemoglobin 10.3. Postoperatively, patient's circulatory volume was stable and further course was uneventful. Gastrotomy tube was removed in seven days and patient discharged from the hospital on the ninth day on a convalescent ulcer diet. To date, patient has shown no further evidence of gastrointestinal bleeding.

DISCUSSION

The most popular method of surgical therapy for this lesion is gastric resection.¹ In 1959 Hardaway and Palmer² reported that they had controlled bleeding by total gastrectomy in patients having hemorrhagic gastritis in whom subtotal gastrectomy had failed. They advocated total gastrectomy as the only certain means of controlling the diffuse hemorrhage occurring in these patients. Parker³ reported some success with 80 per cent gastrectomy and devascularization of the gastric remnant. Rosenkrantz and Bartlett¹ in 1961 reported 14 cases at the Massachusetts General Hospital managed by subtotal gastrectomy. Seven of these patients continued to bleed postoperatively for periods of one week.

In 1962 Farrell, Kanto, and Richmond⁴ recommended vagotomy and pyloroplasty, combined when feasible with suture ligation, as the treatment of choice for hemorrhagic gastritis. They reported 12 cases in a series of 99 patients with upper gastrointestinal bleeding requiring emergency operation. However, they utilized vagotomy and pyloroplasty in only the most desperate cases and stated that only one case continued to bleed postoperatively, but was finally controlled without further difficulty. Farrell, et al, used pyloroplasty and vagotomy only for poor risk or elderly patients.

The first well-documented argument for the use of vagotomy and pyloroplasty in the surgical therapy of hemorrhagic gastritis was that of Sullivan, Rutherford, and Waddell⁵ from the University of Colorado Medical Center and Denver Veterans Administration Hospital in 1963. They reported 10 cases ranging in age from 17 to 68 years. Nine were males, and seven had a history of acute alcoholism. Seven of the ten cases went to surgery within twenty-four hours of admission and received an average of eight units of blood prior to surgery. This massive bleeding is typical of patients with severe hemorrhagic gastritis.

In all cases the diagnosis was established by gastrotomy and examination of the gastric mucosa, which revealed multiple discrete superficial lesions or diffuse mucosal oozing. Bleeding stopped promptly in all ten patients after vagotomy, and did not

(Concluded on Page 261)

METABOLIC FACTORS IN THE PREVENTION OF MENTAL RETARDATION*

Compulsory Screening Legislation Open to Question

MARY L. EFRON, M.D.

The Author, *Mary L. Efron, M.D., of Boston, Massachusetts, Assistant Professor of Neuropathology, Harvard Medical School.*

AS ANY CASUAL PERUSAL of the recent medical literature will demonstrate, previously undescribed inborn errors of metabolism are currently being described at a very rapid rate. This, of course, is due to screening. Simple screening methods exist for amino acids, sugars, organic acids and some other small molecules. Because the techniques are simple, massive screening is possible in many laboratories.

AMINO ACID DISORDERS

We know much more about inborn errors of amino acids and sugars than, for example, about short chain fatty acids because simple chromatographic techniques are available for the former and not for the latter.

We have developed a chromatographic method for detection of abnormally increased concentrations of one or more blood amino acids.¹ The blood is collected on a piece of filter paper; the same blood spots which are collected for newborn phenylketonuria (PKU) screening programs can also be analyzed by this technique. At present, we are screening over 1/3 of all newborn infants in Massachusetts by this means, and we are steadily adding more hospitals to this program. All infants have been tested by the Guthrie PKU test for over three years.

This massive screening has produced an interesting new phenomenon in medicine. First we start with a biochemical defect, an accumulation of some substance in excess in the blood or urine. Then we go back and get the clinical history. In the past, we began with a clinical entity and then looked for a biochemical defect. Now we are reversing the process. With our present state of knowledge, we often cannot predict in advance what the clinical picture might be with a given enzyme deficiency. For example, homocystinuria was first detected in 1962 in a routine screening program

among mentally-retarded individuals.² It was discovered that patients with homocystinuria had a characteristic clinical picture. Among other features of the disease was a striking resemblance to Marfan's Syndrome. Doctor Victor McKusick of Johns Hopkins became interested in this and instituted a screening program among patients diagnosed as Marfan's Syndrome. Recently, he and his associates described 38 patients with homocystinuria, 19 of whom were not mentally retarded.³ All or nearly all patients with this disorder, if they live long enough, develop dislocation of the lens. They also have thrombo-embolic phenomena such as coronary occlusion, cerebral vascular accidents, and renal vein thromboses.

Now we might ask what is the relationship between the vascular problems, the osteoporosis, dislocated lenses and other features resembling Marfan's Syndrome, the mental retardation, and the biochemical defect? One unifying hypothesis is that there is a defect in collagen synthesis or maintenance. The blood vessel walls show collagen abnormalities, the dislocated lenses and osteoporosis might be due to weak collagen and the mental retardation may be secondary to continual small cerebral vascular accidents. A recent report indicates that animals given large doses of Penicillamine develop a collagen disorder.⁴ Penicillamine contains a sulfhydryl group; it is suspected that this excess of SH groups prevents proper linkage of the chains of proteins which form collagen. Could it be that homocystine accumulation in the tissues, since homocystine also contains an SH group, produces a similar defect in collagen synthesis? This hypothesis remains to be tested.

Although homocystinuria was discovered as late as 1962, it may prove to be as common as PKU. It can be detected by a simple test performed on urine specimens with Acetest® tablets or with the same simple reagents which are used to detect cystinuria,⁵ a disease which has been known since 1803.

FATTY ACID DISORDERS

We now know many disorders of amino acid metabolism, like homocystinuria, but we have only scratched the surface of disorders in which other chemical compounds, such as fatty acids, are accumulated. Recently we have studied a new inborn

(Continued on next page)

*Read at the 155th Annual Scientific Assembly of the Rhode Island Medical Society, at Providence, R.I., May 11, 1966, as part of a Panel Presentation on "Obstetric and Pediatric Factors in the Prevention of Mental Retardation."

error of metabolism which involves an enzyme deficiency so that isovaleric acid cannot be metabolized properly.⁶ We are not yet screening for isovaleric acidemia or the many other disorders of fatty acids which must exist. This disorder was detected only because the accumulated short chain fatty acid, isovaleric acid, is a very odoriferous substance. It, and patients who accumulate it, smell like sweaty feet. The disorder is known in two sibs; one was hospitalized in coma with severe acidosis. It was immediately appreciated that the child had an unusual odor, even after washing. The mother informed the pediatricians that she had another child at home who also became lethargic during infections and who had the same characteristic odor. The pediatricians were astute enough to realize that this must represent an inborn error of metabolism with accumulation of something that smelled like sweat. Our problem was that none of us knew what makes sweat smell like sweat. A suggestion was made that we consult the odor experts of the Arthur D. Little Co. in Cambridge. This was done, and the child was systematically sniffed. It was no problem for the experts to decide that the child smelled like short chain fatty acids, particularly isovaleric acid. With this useful information, the biochemical abnormality in these children was easily elucidated. Techniques were developed for separation of isovaleric acid and other short chain fatty acids by gas chromatography.⁷ We looked up the metabolism of isovaleric acid and noted that it is derived from leucine. The gas chromatograph confirmed the findings of the odor experts; isovaleric acid was specifically increased in the blood and urine of these two children. Leucine feeding resulted in a prompt increase in odor and in clinical symptoms reproducing their frequent illnesses, namely lethargy and acidosis. Dietary history revealed that these children specifically disliked protein foods: milk, eggs, cheese, and meat. They kept themselves on a very low leucine intake. One child had a hospital admission apparently induced by ingestion of two slices of meat, a most unusual meal for him.

No doubt many such disorders exist; perhaps there will eventually be at least one inborn error known for nearly every enzymatically-mediated reaction in the body.

CRITERIA FOR SCREENING

I am often asked what criteria to use to decide what patients should be screened for biochemical defects. This is quite difficult to answer, since the diseases associated with known biochemical defects encompass all fields of medicine. Amino acid abnormalities have been associated with mental retardation, epilepsy, hepatic cirrhosis, rickets, hereditary nephritis and deafness, thromboembolic

phenomena, ammonia intoxication, abnormal hair, pellagra-like rashes and other disorders. One obvious criterion can be stated: if two or more sibs or close relatives have the same unusual combination of clinical disorders, the risk of an inherited disorder is great. A second criterion is consanguinity of the parents. A recent screening program in the Wrentham State School, a large institution for the retarded with a capacity of about 2,000 patients, has uncovered three "new" disorders of amino acid metabolism. Two of the three patients were products of brother-sister matings.⁸

In the absence of obvious consanguinity, one should always ask about the ancestry of the parents. Did they come from the same small town? Population isolates have long been known to contribute much more than the expected number of inborn errors of metabolism. Recently, a "new" amino acid disorder, tyrosinosis has been described in many patients particularly from two population isolates. Seven cases have been detected in southern Sweden,⁹ while no less than 35 cases are known in the French-Canadian population in Quebec.¹⁰ This enzyme abnormality, a deficiency of the enzyme which degrades the keto acid of tyrosine, is associated with hepatic cirrhosis, and if the child lives long enough, with phosphate-losing rickets. It apparently responds to a low tyrosine diet if the diet is given from very early infancy.

CRITERIA FOR TREATMENT

Certain problems exist with disorders like phenylketonuria and tyrosinosis, where treatment appears to be effective. Successful treatment requires early detection, before brain or hepatic damage has occurred. This leads to a drive for early screening, particularly among newborn infants. We do not know, however, how many of the newborn infants with the biochemical defect would have remained normal without dietary therapy. In screening programs for PKU, the incidence of high blood phenylalanine (over 20 mg. per 100 ml.) has proved to be 1 in 10,000, whereas the estimated incidence based on retarded individuals was 1 in 20,000. Why are finding twice as much as expected? There are those who suggest half the "treated" phenylketonurics would have had the same or higher intelligence without dietary therapy. We are now attempting to find out whether this is true by screening the normal population of Massachusetts, via the blood specimens sent for the Hinton test. This covers all pre-marital specimens, women hospitalized for pregnancy and delivery, all hospital admissions, and other groups. If half the phenylketonurics are of normal intelligence, we should discover this fact.

In addition, it appears, not surprisingly, that there may be several entities besides PKU which present with high blood phenylalanine in the newborn pe-

riod. It is now clear that about one-quarter of all infants with increased blood phenylalanine have a fall in the blood phenylalanine concentration to normal or near normal levels by 2-6 years of age.¹¹ It had previously been thought that the blood phenylalanine concentration, if markedly elevated at birth, remained elevated throughout life but this is not true in atypical PKU. The other entity, with declining blood levels, appear also to be a deficiency of phenylalanine hydroxylase, since the blood tyrosine does not rise, and indeed falls, when phenylalanine is administered, just as it does in PKU. If this is so, why does the blood phenylalanine concentration fall to normal or near normal? Could it be that an alternate pathway for degradation of phenylalanine develops after the period of infancy and allows affected individuals to dispose of phenylalanine? Do these individuals become retarded because of the hyperphenylalaninemia in infancy? Some may; we are studying one child age 6½ years who seemed to be a classical PKU at age 1½, is institutionalized and severely retarded, but who now has a near-normal blood phenylalanine concentration. The patient is biochemically indistinguishable from a PKU heterozygote, except that in heterozygotes some tyrosine is made after a phenylalanine load, while in this patient the blood tyrosine falls after a similar load.¹² It is suspected, thus far on the basis of a very few patients, that individuals with this second type of hyperphenylalaninemia are from a different population group, Mediterranean rather than northern European.

SUMMARY

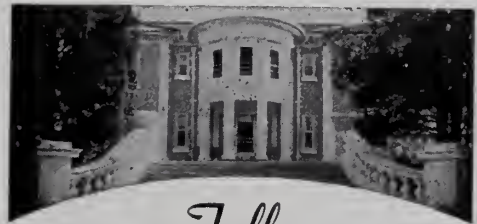
Screening programs have thus enormously increased both our knowledge and our awareness of our ignorance. The experience with massive PKU screening in particular has indicated that we know very little about inborn errors of metabolism. Certainly, the simple concepts which were the basis of the compulsory legislation for PKU are open to question. It is hoped that we can pursue our course of investigation of the other inborn errors of metabolism without imposition of compulsory screening programs which necessarily lead to treatment by inexperienced persons and which necessarily imply that there is an effective "tried and true" therapy which must be administered as soon as the diagnosis is made. Our state of knowledge about the best treatment for these disorders is as primitive as that about the pathophysiology of the diseases.

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ATRIAL FLUTTER WITH COMPLETE AV HEART BLOCK DUE TO DIGITALIS TOXICITY

Report of a Case

Unique Case Is Controlled by Withholding Digitalis

ALTON M. PAULL, M.D. and SHARAD Y. DESHPANDE, M.D.

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THE ASSOCIATION OF ATRIAL FLUTTER and complete atrioventricular (AV) block is unusual. This combination of abnormalities has been observed in coronary insufficiency, myocardial infarction, and arteriosclerotic heart disease with or without hypertension, and in rheumatic, syphilitic and congenital heart diseases.¹ Although an excess of digitalis is one of the commonest causes of complete AV block,² it rarely causes auricular flutter.³ In the presence of an excess of digitalis atrial flutter is more apt to develop from a normal sinus rhythm than from auricular fibrillation.⁴

The purpose of this paper is to report a patient with auricular fibrillation who developed atrial flutter and complete AV heart block on the basis of digitalis intoxication. To our knowledge the combination of atrial flutter and complete heart block due to digitalis toxicity has never before been reported.

CASE REPORT

Mr. G. S., a 78-year-old male, was admitted to the Memorial Hospital in Pawtucket, R.I., on August 3, 1966. He was known to have had arteriosclerotic heart disease and to have taken digitalis since 1960. Auricular fibrillation had been present since 1964. Most recent therapy consisted of 0.1 gm. digitalis leaf daily plus intermittent diuretic therapy with chlorthiazide. The present admission was necessitated by the development of nausea, vomiting, diarrhea, and severe dehydration of approximately 3 weeks duration. Physical examination revealed a regular pulse rate of 45 per minute, respirations 20 per minute, and blood pressure 120/80 mm. Hg. Other findings were 2 plus edema of both lower legs, distended jugular veins, rales at both lung bases posteriorly, and a slightly enlarged liver palpable 2 fingers breadth below the costal margin at the midclavicular line. Auscultation of the heart revealed a regular but slow rhythm with a changing intensity of the first heart sound. There were diminished tissue turgor and dryness of the tongue and mucous membranes consistent with severe dehydration. The initial electrocardiogram

(Fig. 1) revealed atrial flutter with complete AV block.

Laboratory findings on admission included a hematocrit of 41 per cent, white blood count of 10,850 with 81 per cent neutrophils, 10 per cent lymphocytes, and 9 per cent monocytes. The blood urea nitrogen was 41 mg. per cent and the blood sugar was 165 mg. per cent. The serum sodium was 140 mEq./L., potassium 3 mEq./L., chlorides 96 mEq./L., and CO₂ 24 mEq./L.

Chest x-ray studies revealed the heart to be enlarged in the region of the left ventricle. The lung fields were clear.

A diagnosis of digitalis intoxication was made on the basis of the nausea, vomiting, diarrhea, the increasing severity of the cardiac failure,⁵ and the electrocardiographic findings of auricular flutter with complete AV block. Digitalis was immediately discontinued. Treatment with potassium was withheld, despite the hypokalemia, because of the presence of complete AV block. An electrocardiogram the following day revealed that the flutter had been converted back to auricular fibrillation with an irregular ventricular rate of 50 per minute. On the third hospital day treatment with Elixir of Kaon® (potassium gluconate) was started and continued until a normal serum potassium level was attained.

The patient was discharged on the eleventh hospital day. Several days later, he was again started on 0.1 gm. of digitalis leaf every other day, but because of the reappearance of nausea digitalis was again discontinued. Since then, we have withheld digitalis, but have administered 40 mg. daily of the diuretic furosemide, on which the patient has done very well.

DISCUSSION

Wedd described the first case of atrial flutter due to digitalis toxicity in 1924.⁶ According to Coffman and Whipple,⁷ authentic cases of any arrhythmias due to digitalis intoxication should meet the following three criteria: 1. the patient should develop the arrhythmia while taking digitalis; 2. He should not be taking any other drugs known to cause cardiac arrhythmias; and 3. The abnormal rhythm should disappear when digitalis is discontinued. These authors reported one case of atrial flutter due to digitalis and collected fifteen more

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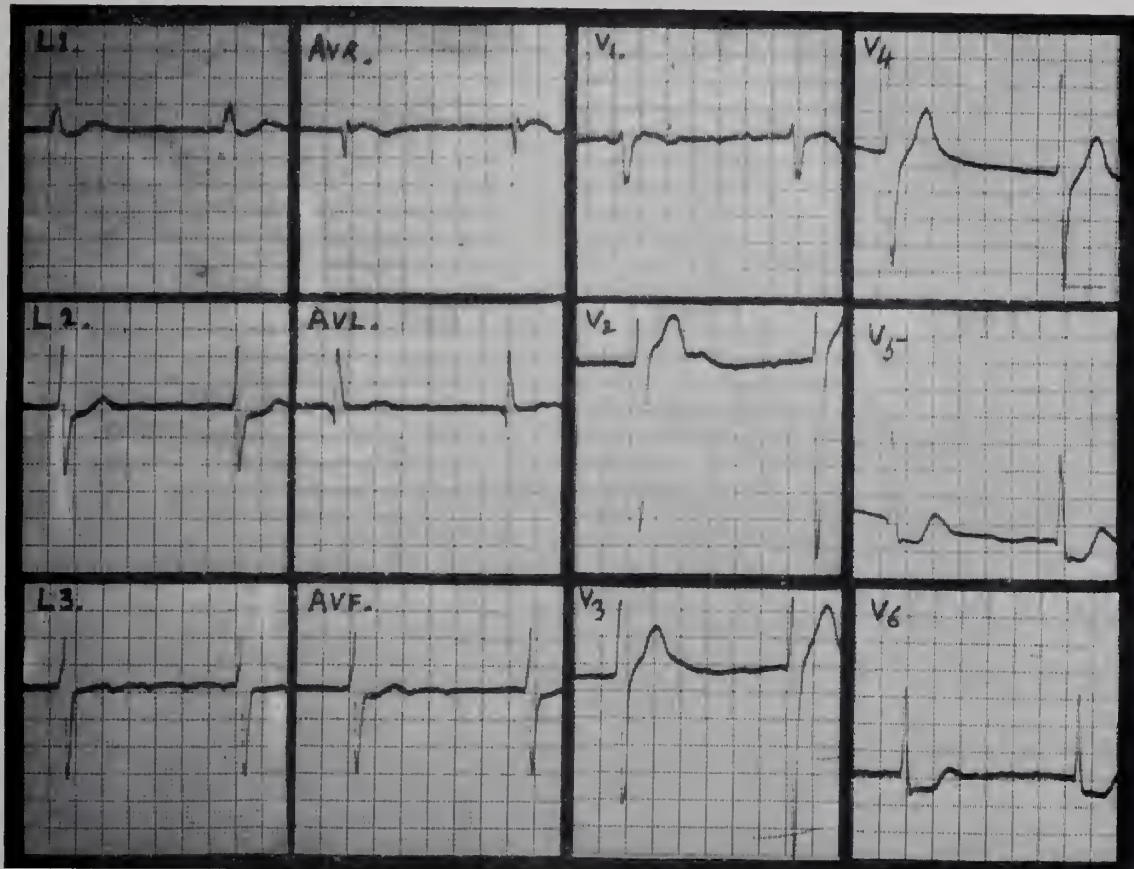


FIGURE I (a)

Twelve lead electrocardiogram reveals that the P or F waves are negative in leads III and aVf and best seen in V.

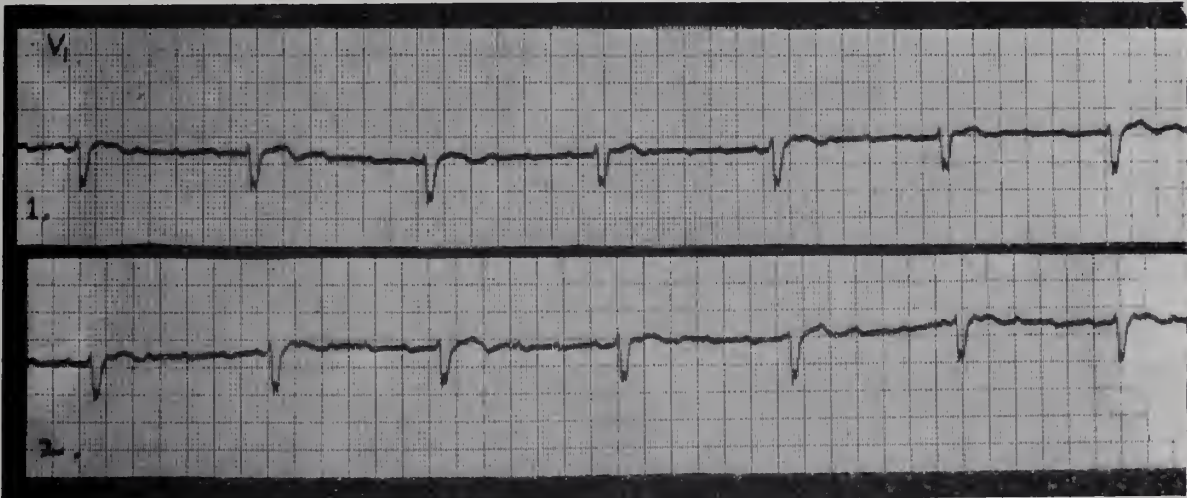


FIGURE I (b)

Continuous tracing of lead VI, divided into sections 1 and 2, reveals atrial flutter with complete AV block. The atrial rate is 214/min. with the ventricular rate of 45 per minute. The F-R time is variable.

from the literature. Since then eight additional cases have been reported,^{4 8 9 10} making a total of 24 cases of atrial flutter resulting from digitalis excess (Table 1). The present case satisfies the above criteria, and in addition shows complete heart block.

TABLE 1
Digitalis Induced Auricular Flutter

Authors	Cases Reported
1) Coffman, Whipple (1959)	16
2) Von Capeller, Copeland and Stern (1959)	3
3) Aravanus, Michaelides (1959)	1
4) Brest, Durge, Goldberg (1960)	1
5) Delman, Stein (1964)	3
	—
	24

The rarity of atrial flutter and its mechanism of development in digitalis toxicity are unexplained.¹⁰ According to one theory, the vagal effect of digitalis predisposes in the presence of a normal sinus rhythm to the development of an atrial focus which leads to atrial flutter. In the presence of atrial fibrillation, atrial flutter may be due to a preponderance of the direct muscular effect of the drug.¹¹ The explanation for complete AV block due to digitalis excess is that, through reflex vagal stimulation and a direct action on the AV node, an increase in the refractory period of the AV node results, thus inhibiting the transmission of atrial impulses to the ventricle.¹²

Digitalis toxicity is more commonly manifested as paroxysmal atrial tachycardia (PAT) with block than as atrial flutter. In the present case PAT with block must be considered in the differential diagnosis. The differences between these two arrhythmias, as mentioned by Lown and Levine, are presented in table 2.¹³

TABLE 2
Contrasting features of PAT with block and atrial flutter

Diagnostic feature	PAT with block	Atrial flutter
Usual atrial rate	150 to 200	Over 200
P wave (leads II and III)	Upright	Inverted
P-P baseline	Isoelectric	Mobile
P-P interval	Regular or Irregular	Regular
Ventricular premature beats	In 40 per cent	in 20 per cent
Carotid sinus pressure	A-V block increases	A-V block increases
Onset and Offset	Gradual	Abrupt
Potassium administration	Return to sinus rhythm	No effect

In flutter, atrial rates below 200 are unusual unless quinidine has been given, while in PAT the atrial rate is usually less than 200. Typically in flutter one fails to see an iso-electric interval between atrial waves. On the contrary in atrial tachycardia discrete P waves with an iso-electric interval are

seen. This difference is seen most clearly in Leads II, III, and AVF. When atrial tachycardia occurs as a manifestation of digitalis intoxication, a 2:1 AV block is usually present with a resultant ventricular rate of 85-100 per minute. When auricular flutter is digitalis induced, a 4:1 AV block or greater is usually found. When atrial flutter is present with either a 2:1 AV block or variable up to 4:1, it is unlikely that this is due to digitalis.

The differentiation between paroxysmal atrial tachycardia with block and auricular flutter is of great importance, since the former is usually digitalis induced while the latter usually requires more digitalis. Rarely atrial flutter result from digitalis intoxication. Paroxysmal atrial tachycardia with block and atrial flutter are usually easily differentiated. Occasionally differentiation may be quite difficult on the basis of electrocardiographic criteria (including esophageal leads), as, for example, in atrial tachysystole as reported by Rosner.¹⁴ We concluded that our patient had flutter for several reasons: 1. negative P waves in Leads III and AVF; 2. P waves best seen in Lead V.; 3. auricular rate (214/minute); and 4. degree of AV block (complete).

The treatment of atrial flutter due to digitalis toxicity¹⁰ consists of discontinuation of the digitalis and administration of potassium if a potassium deficiency is present. It should be noted, however, that flutter with a high grade second degree AV block or complete heart block due to digitalis should not be treated with potassium, quinidine, or procaine amide hydrochloride, since all of these drugs may suppress the essential ectopic pacemaker and thus induce ventricular fibrillation.¹⁵ The disappearance of atrial flutter shortly after the discontinuation of digitalis strongly indicates that digitalis intoxication is the cause.¹³ The patient herein reported was treated successfully by omission of digitalis alone, the atrial flutter and complete AV block disappearing within 24 hours.

SUMMARY

A case of digitalis intoxication with resulting atrial flutter and complete heart block is reported. The literature concerning atrial flutter secondary to digitalis toxicity is briefly reviewed. We were unable to find a previous report of a case manifesting a combination of atrial flutter and AV block due to digitalis. In the presence of digitalis toxicity associated with complete AV block potassium administration is contraindicated even in the presence of hypokalemia.

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CHANGING CONCEPTS IN THE MANAGEMENT OF HEMORRHAGIC GASTRITIS

(Concluded from Page 254)

recur. There was one death five days after surgery from liver failure and aspiration pneumonia.

The cessation of bleeding following vagotomy results from an opening up of arterial venous shunts after severing of the vagal innervation to the stomach. The presence of these arterial venous shunts in the submucosa of the stomach has been investigated and demonstrated by Nylander and Olerud⁶ who used microangiography and micro dissection techniques to show the opening of these shunts and the decreased filling of the capillary bed in the vagotomized rat stomach. These venous shunts lie in the submucosa below the superficial erosions; after vagotomy, blood is shunted through deeper channels diminishing flow to the mucosa. The effect is generalized throughout the gastric wall and not of a transient nature.

A gastroduodenotomy is first performed to rule out duodenal ulceration as a source of bleeding; this may be closed transversely to effect the pyloro-

plasty. Then through a high longitudinal gastrotomy the gastric wall is examined to confirm the diagnosis of hemorrhagic gastritis. Starzy⁷ recommends eversion of the gastric mucosa through the gastrotomy incision to allow for more extensive inspection of the gastroesophageal area. After this incision is closed and the pyloroplasty is accomplished, bilateral vagotomy is performed. Suture ligation of significant localized bleeding points, for example a bleeding duodenal ulcer or longitudinal tears in the gastric mucosa such as are present in the Mallory-Weiss syndrome, is added as indicated.

CONCLUSION

Three cases of hemorrhagic gastritis treated by vagotomy and pyloroplasty are presented to support the concept advanced by Sullivan, Rutherford, and Waddell that vagotomy is an effective surgical method of controlling bleeding in hemorrhagic gastritis.

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Therapeutic Revolution Has Not Eliminated Need for Human Relationship of Doctor and Patient

JOSEPH J. BAKER, M.D.

The Author. *Joseph J. Baker, M.D., of Providence, R.I. Superintendent, Butler Hospital; Member Institute of Health Sciences, Brown University; Former Associate Professor of Psychiatry, Vanderbilt University Medical School.*

ANY PERUSAL OF MEDICAL HISTORY will reveal the fact that, from the very beginning, the healing professions have been interested in agents affecting human behavior. Man's moods, and their effect on his behavior, have been the subject of much study and speculation. Not only medical literature, but folklore, fiction, opera — all have been replete with references to potions or other magic formulas that made the hero fall hopelessly in love or made him lose his memory, or brought about other drastic changes, depending on the needs of the plot.

Probably the oldest such drug, and the one used the longest and by the most people, is not a drug at all, strictly speaking, but must be included because of its pharmacological activity in relation to behavior. I refer to that venerable general anesthetic, ethyl alcohol! In the same manner, one would have to include another ancient remedy used for a host of things over the centuries, and still very much in use today. That is morphine and indeed the whole family of opiates. While morphine has been used primarily for pain in recent centuries, its properties have been known since 3,000 or 4,000 B.C., and it has been used for all manner of behavioral effects.

If you will indulge me, I should like to quote from a volume in the Isaac Ray Library at Butler Hospital. The book is entitled "The Chyrurgian's Closet" and was published in England in 1630. The best way I can describe it is to say that it is a forerunner of our "Physician's Desk Reference." It has formulas to ease every imaginable human affliction and must have been very popular in its day. The example I shall quote is made with a generous helping of opium, among other things. After instructing the physician how the concoction shall be prepared, the text advises him to "...extract

the balme which cheeres the heart and restores decayed spirits. It preserves the body from putrefaction, it prevents fevers, it cures the epilepsie, being administered with generous draughts of odoriferous wine. It expels melancholie and sadness, which oppresse the heart without any just cause from without. It refresheth overwearied limbs." The beautiful language (which is reminiscent of the 23rd Psalm) describes the wide ranging effects of this mixture of opium and alcohol.

Coming to a later period, we find the barbiturates, which are relative newcomers, having appeared on the scene in the mid-19th Century. Their sedative and hypnotic properties are well-known to all physicians. They are mentioned because of their effect on behavior, chiefly through their depressing action on the central nervous system. At the other end of the spectrum, there is amphetamine, which affects behavior through its pronounced stimulation of the central nervous system.

Along with these drugs which affect behavior by stimulating or depressing the central nervous system, there have been in existence a rather weird group of drugs that have the specific power to produce psychotic symptoms without delirium and without disorientation. The peyote bean, for example, has been known to the Mexicans and the North American Indians for this particular property; and it is used in religious rites to the extent that it has given its name to a particular religious sect. The active ingredient of the peyote is mescaline. The strongest, most potent psychotogen, lysergic acid diethylamide, or LSD, is very much in the news today. It is a synthetically prepared drug whose unusual properties were discovered for the first time in the 1940's.

By mid-century, then, all of these drugs except the psychotogens were available to the practicing physician. Along with other branches of medicine, psychiatry was using these and related drugs and was experimenting with various dosages and combinations and methods of administration in dealing with its diverse load of patients.

The picture was not a particularly optimistic one. While there were many more doctors dealing with psychiatric patients after World War II than before, the outlook for the patient was not particularly good, especially if he were sick enough to require

*Doctor Baker's paper and the discussion which follows were part of a Panel Presentation at the 155th Annual Scientific Assembly of the Rhode Island Medical Society, at Providence, R.I., May 11, 1966.

hospitalization. His average stay, if he were psychotic, might be something on the order of twelve or fourteen months. If he were receiving active treatment, it might be hydrotherapy to calm his agitation, or paraldehyde, or one of the barbiturates; or it might be electroshock therapy or convulsions induced by Metrazol® or insulin; or, as a last resort, it might be pre-frontal lobotomy. These were some of the choices available at mid-century.

In the early 1950's we were introduced to a new set of drugs which brought about something of a therapeutic revolution in the practice of psychiatry. Each of us who was practicing then was introduced to the revolution in his own way. I remember seeing a patient in consultation who had intractable vomiting associated with pregnancy and deciding to try a drug that was then newly available as a potent anti-emetic, especially in cases that were thought to be emotionally induced. This was chlorpromazine later marketed as Thorazine.® It was one of the first of the so-called tranquilizers to come into general use and, of course, is still being widely used today. At about the same time, I was treating a patient for a chronic anxiety state, who asked me one day if I would allow him to try a new drug he had read about in Reader's Digest. He couldn't remember what it was called, but its name somehow reminded him of a snake. He was talking about Serpasil.® This was the first of the rauwolfia alkaloids, which enjoyed a period of wide usage in the treatment of anxiety and other psychiatric conditions, but which are not much used in psychiatry any longer.

These two, the phenothiazines and the rauwolfia alkaloids, were the first of the tranquilizers. Many more were to follow. What did they do? The phenothiazines had the happy property of calming the psychotic patient without knocking him out, and of making him accessible psychologically. In practice, this meant that patients who formerly could look forward to many months in the hospital might now have maximum benefit, with removal of the most alarming symptoms, in a matter of weeks, and be returned home for continued treatment as outpatients.

It is estimated that 50,000,000 patients have been treated with the phenothiazines. In addition, some 10,000 papers have been written describing the tranquilizers. With the help of our two distinguished panelists, it is our purpose to discuss some of the drugs that have figured in this therapeutic revolution.

PANEL DISCUSSION

(Panelists participating with Doctor Baker were Morris A. Lipton, M.D., of Chapel Hill, North Carolina, and Alberto DiMascio, Ph.D., of Boston, Massachusetts)

Moderator Baker: I should like to ask Dr. Lipton a question about the anti-depressant drugs. For example, the patient frequently has to take a drug like Tofranil® for a period of three or four weeks before the anti-depressant properties make themselves felt. Can you explain the chemical and physiological reasons for this?

Dr. Lipton: I can talk around it a little bit. If one does metabolic experiments on people receiving anti-depressant drugs, one can find a fairly good correlation between the onset of the metabolic changes and the clinical improvements. What we don't understand is why it takes so long for the metabolic changes to occur, and there is no answer to that at the present time. When it comes to animals, we have more answers. In them, the Monoamine Oxidase (MAO) inhibitors produce metabolic changes within a matter of hours. I suspect that with humans we are not really looking at the right things. It becomes a matter of superimposing one chain of events on another. There are certain effects that the inhibitor produces in the patients immediately, and these have their consequences which, in turn, produce *their* consequences. You have to go through four or five sets of consequences before you get to the important one that has something to do with the depression *per se*. It is difficult to evaluate.

Moderator Baker: I have a question here that I would like to direct to both Dr. DiMascio and Dr. Lipton. What is your opinion regarding the use of combinations of anti-depressant drugs with tranquilizers?

Dr. DiMascio: We have always mixed drugs for symptomatic relief. However, we are not quite sure whether it is always necessary to use combinations; for example, we are now undertaking a study in which we are examining the use of chlorpromazine alone vs. epinephrine alone. Both seem to be equally effective in depressed patients. We are continuing this work and have really just begun it.

Dr. Lipton: I would like to emphasize what Dr. DiMascio said. When we use combinations, we should use them because of the indicating symptoms. There is, of course, a long tradition. Generally speaking, when we don't know the etiology, we treat the symptoms. If the symptoms are of two types, we treat the two types. In using the psychotropic drugs for illness, we must remember that we are dealing with a very complex etiology and that the use of combinations introduces certain hazards.

Moderator Baker: What about meprobamate? Our questioner wants to know if it is really worthless as stated by the United States Food and Drug Administration.

(Continued on next page)

Dr. Lipton: I don't think meprobamate is worthless. You know how the military uses the terms "strategic" and "tactical." I think meprobamate has very little "strategic" utility, but a good deal of "tactical" utility. It is something which can be used in spot situations and for limited periods of time. When the patient is unduly anxious or going through a crisis, it is a sedative. I am not sure that it is much better than phenobarbital, but at least it doesn't make one as drowsy as does phenobarbital.

Dr. DiMascio: I would like to highlight one point. This particular drug seems to have its effectiveness when used for a week or two at a time. After that, its effectiveness drops off very rapidly. It is not for chronic maintenance administration or for chronic anxiety states, but for the specific situational state.

Moderator Baker: Will harm be likely to arise from taking Librium 20-40 mgs. a day for a period of years?

Dr. DiMascio: The Food and Drug Administration, I believe, is about to place the drug on its new restricted list. One of the reasons for this is that there have been some reports in the literature that these drugs may produce addiction or at least habituation, and there is a lot of controversy about this. From a perusal of the cases that have been published, I do not feel that this is the case. I myself have not seen a single case of addiction with these drugs. However, they do produce ataxia and motor incoordination when given in therapeutic doses for extended periods of time.

Dr. Lipton: I would like to re-state a principle at this point, that, if a patient has to take these medications in large doses for several years, there is some other problem existing. There is no indication for the kind of usage suggested by the question. We all know that some problems are psychological and situational as well as biological. To try to cure them and treat them chronically without alleviating the situation is just not sound therapy. If the patient is in this situation, call in an expert and try to get other therapy that will make it unnecessary to use prolonged drug treatment.

Moderator Baker: What are the risks in the treatment of a young woman who may become a mother?

Dr. Lipton: There are no unusual hazards in treating a woman who is *not* pregnant with any type of psychotropic drug. If she is young and otherwise somatically healthy, I see no hazards.

If, however, she is pregnant, we have a different situation. These drugs do cross the placental barrier. They do enter into the fetus and we are not at all sure of the consequences of this. There are some

data about reserpine administered throughout pregnancy. There is no question but that the litter size is smaller in animals, and furthermore they have certain unusual behavioral trends. I would be very cautious about using full doses of this drug in women who are pregnant.

Moderator Baker: Please comment about the use of alcohol with tranquilizing drugs, the fatal dose, etc. Please comment on the recent death of a famous columnist for this reason.

Dr. Lipton: I didn't know it was tranquilizers and alcohol, but the general principle cannot be overlooked. Tranquilizers do have some depressant action, particularly on the sub-cortical centers, and their action is synergistic with other central nervous system depressants. Alcohol and tranquilizers make very potent combinations, and in this sense are hazardous with respect to accidental death. They are even more hazardous in their effect on judgment and motor coordination. No one knows the number of traffic accidents, as well as industrial accidents, which they have caused. By and large, patients using tranquilizers should be very cautious about their intake of alcohol.

Dr. DiMascio: With regard to this, I do some studies on so-called normal college students, and, although the studies are double-blind, we do have to give a couple of standard warnings. One of them is that, if they get sleepy on these drugs, they should not drive. The other one that is routinely given is that some of these drugs may have an unusual effect when used with alcohol, and therefore they should minimize their drinking. Sometimes they think they will only have two or three beers, and they go out and actually try to do this, but they do not reckon with the potentiating effect. The result is that they get much more intoxicated than they would expect to on such a small amount of alcohol. This is something to warn your patients about.

Moderator Baker: As your moderator, I shall claim the right to the last word. While our topic today has been drugs, I would not want it to appear that drugs alone can cure patients who are mentally ill. Drugs are only aids and cannot actually change the conditions that produce illness. They ameliorate symptoms, and of course this is important, because by doing so they relieve a great deal of suffering and make patients more accessible psychologically. But this is not necessarily the end of treatment. On the contrary, it may be the precise point at which truly effective treatment can begin, if the patient becomes able to explore the possible causes of his illness. To this end, the human relationship of doctor and patient is still one of the major tools of psychiatry and, indeed, of all of medicine.

NONPARASITIC CYSTS OF THE SPLEEN:

CASE REPORT AND REVIEW OF THE LITERATURE

Rare Disorder, Here Associated With Pregnancy, Is Cured by Splenectomy

LEONARD J. TRIEDMAN, M.D. and SUMNER I. RAPHAEL, M.D.

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INTRODUCTION

NONPARASITIC CYSTS OF THE SPLEEN are an extremely rare and interesting surgical problem. An extensive collective review of this entity was presented by Royal H. Fowler⁶ in 1953.

The first reported case of splenic cyst is credited to Andral¹ in 1829. This represented also the rarest form, a dermoid, of which only eight have since been reported. The first splenectomy for cysts was performed by the French surgeon Péan⁹ in 1867.

The usual variety of nonparasitic cyst as seen in North America and Europe is the giant unilocular cyst. Parasitic cysts of the spleen are usually hydatid in origin, though only 3 per cent of hydatid disease involves the spleen.

We report herein a large benign lymphangioma-tous splenic cyst, presenting in a young post partum female. The problems in diagnosis will be discussed and the possible association of the clinical entity with pregnancy alluded to.

CASE REPORT

This was the first Providence Lying-In Hospital admission of L.R., a 22-year-old white female, two months postpartum, who presented with an asymptomatic abdominal mass.

Two months previously she had delivered an 8-pound full term normal male infant, the result of her first pregnancy. Labor and delivery had been reported as uneventful.

On routine postpartum examination the mass was noted by her obstetrician (S. I. R.) for the first time. During prenatal examinations no organomegaly or abdominal masses had been found.

On examination the left upper quadrant mass measured approximately 20 cm. in greatest diameter, was smooth and cystic to palpation, and was freely movable. When patient was in the upright position, the mass descended to the lower abdomen and pelvis. Pelvic examination in the lithotomy position showed normal uterus, ovaries, and adnexa. Preoperative diagnoses of pseudocyst of the pan-

creas, omental cyst, and mesenteric cyst were considered.

Laparotomy carried out on November 17, 1964 revealed a large lymphangioma-tous cyst of the lower pole of the spleen. The latter organ was mobile enough so that it could readily be brought down into the pelvis. Splenectomy was carried out easily, and postoperative course was uneventful.

Pathological examination of the specimen showed the cyst to be unilocular containing 850 ml. of turbid greenish grey fluid and fine crystals. The cyst measured 13 cm. in diameter, had a dull greyish green smooth surface, and took its origin from the posteromedial wall of the spleen (Fig. 1, 2). The cyst wall lining showed primarily low cuboidal epithelium with minimal reactive changes. It was felt to be a congenital lymphangioma-tous cyst.

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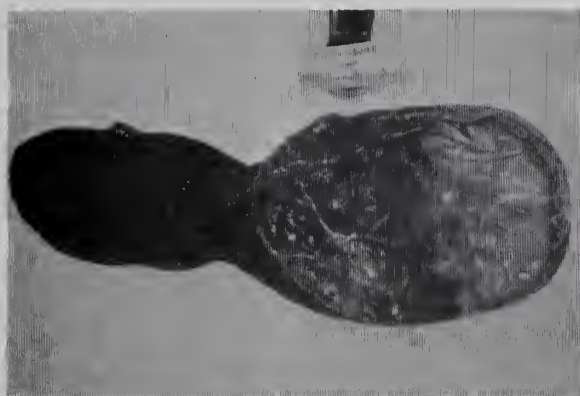


Fig. 1



Fig. 2

CLASSIFICATION

Basic classification is determined by the presence or absence of a cellular lining and component epithelium. Primary or "true cysts" have a cellular lining of (1) epidermoid, (2) dermoid, (3) endothelial, (4) cuboidal, (5) lymphangiomatous, or (6) hemangiomatous type. The secondary or "false cyst" lacks the cellular lining and component epithelium. The following is a pathologic classification:

- I. Primary
 1. Congenital
 2. Traumatic
 3. Inflammatory
 - a. Infoliation cysts
 - b. Dilatation cysts, i.e. lymphangiectatic
 4. Neoplastic cysts (also congenital)
 - a. Epidermoid
 - b. Dermoid
 - c. Lymphangioma
 - d. Cavernous and capillary hemangioma
- II. Secondary
 1. Traumatic (blood and serous type)
 2. Degeneration (liquefaction)
 3. Inflammatory (necrosis, tuberculosis)

PATHOGENESIS

Speculation on the etiology of primary cysts has given rise to several theories over the last century. Howald⁷ believed that all large cysts take origin as small cysts and result from dilation of lymph spaces. Reuggli¹³ suggested that surface inflammatory processes act as stimulating factors. Pepere¹¹ suggested that serous cysts originate from cellular nests which remain under the capsule from abnormal invagination of the perisplenium during the development of the organ. This occurs in the bottom of sulci which separate the primitive lobes that gradually fill up as the organ develops. The result is similar to that which occurs in the pelvis of the kidney, ureters, bladder ovaries, and epicardium.

Fouts and Lindopp⁵ attribute formation of hemangiomata to abnormal development of the blood vessel anlage. Dilation cysts of lymphangiectatic or polycystic type have their origin in the lymphatics. Fink⁴ in 1883 first described lymphatic cysts and proved histologically the transition from dilated lymph channels to large cystic cavities. The dermoids and epidermoids are easily explained as congenital defects. The former contain extraneous elements of ectodermal origin, i.e. hair, sebaceous material, and keratin. The diagnosis of epidermoid cyst depends on the presence of stratified squamous epithelium, keratinization, and prickly cells. The lymphangiomatous cysts, as well as capillary and cavernous hemangiomata, are explained on the basis of faulty anlage and developmental disturbance in the structure of certain vascular segments which do not fit into the circulatory system and retain their embryonal characters.

In the development of secondary splenic cysts antecedent disease shows an intimate causal relationship. Any causes of splenomegaly which predispose to spontaneous or traumatic hemorrhage and subsequent cyst formation must be considered. These would include trauma, malaria, typhoid, infectious mononucleosis, and even pregnancy. A reasonable mechanism would be formation of a subcapsular hematoma with organization, subsequent formation of a fibrous wall, and thus an encapsulated hemorrhagic cystic structure. Subsequently later absorption of blood pigment may convert the hemorrhagic cyst into a secondary serous type.

CLINICAL CHARACTERISTICS


Incidence: In a collective review Fowler⁶ in 1953 reported 265 cases of which 110 or 42 per cent were primary and the remaining 58 per cent were secondary. The primary cysts included 27 lymphangiomata, 48, hemangiomata, 23 epidermoids, 2 dermoids, and 10 cysts with endothelial lining. Through 1965, 170 additional sporadic cases have been reported. Pemberton¹⁰ reviewed 800 splenectomies from the Mayo Clinic, 4 of which were for splenic cysts.

Age: The vast majority of patients with splenic cysts are under 40 years of age. In Fowler's original series all of the primary cysts were in patients under the age of 40.

Sex: Extensive reviews by Fowler⁶ and Pohle¹² have shown a 60:40 female dominance. Schottenfeld and Wolfson¹⁴ in a smaller series reported equal sex distribution. The frequent occurrence during the child-bearing age and frequent association with pregnancy and the postpartum period are of interest. Of the reported cysts removed during and following pregnancy 70 per cent were large solitary hemorrhagic cysts. Monier⁸ states that congestion of the spleen during menstruation and pregnancy may explain the increased sex incidence. One explanation for postpartum secondary splenic cysts might well be embolism leading to splenic infarction with secondary hemorrhage, degeneration, and eventual cyst formation. The physical rigors of labor with an enlarged fragile spleen may play a role as well.

Physical Characteristics: Large solitary unilocular cysts represent about 80 percent of splenic cysts, while the remainder are scattered or fused multilocular types. Sixty-five per cent are subcapsular, the others lying deep in the splenic substance. The bulging capsule characteristically forms a large part of the outer wall of the cyst. The majority of cysts reported were in the lower pole of the spleen. Frequently with very mobile spleens the mass may descend into the pelvis when the patient is in the upright position; with the patient supine the spleen

(Continued on Page 267)



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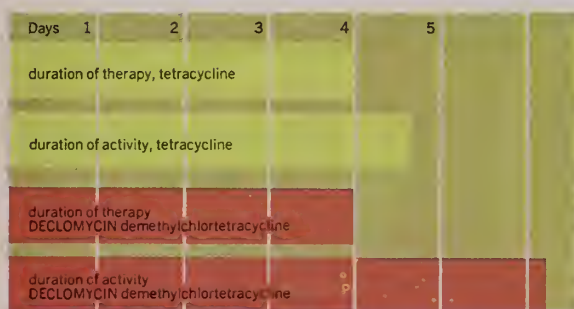
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tial. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

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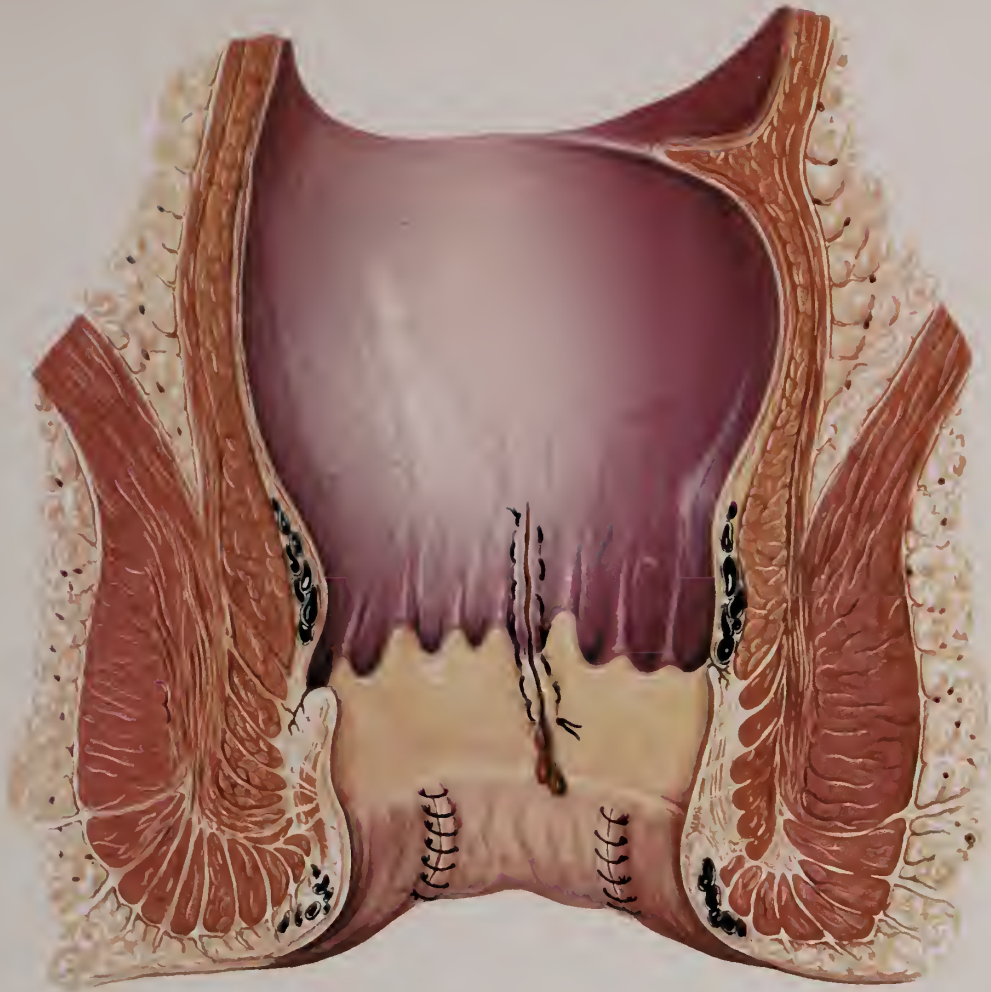
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In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone. **Contraindications:** Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to

be definitely related to use of the drug, laboratory findings characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalofluorescence and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has been reported in other patients taking prolonged courses of medication. Patients with chronic infection have been given to 2 Gm. of the drug daily for periods of two to six months. Patients with rheumatic fever have taken prophylactic doses, 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of the patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who received 250 mg. of Ilosone daily for an average of sixteen months in rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevations of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (3 to 10 day) courses of Ilosone in the treatment of streptococcal infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally. Ilosone Pulvules®, Ilosone Chewable Tablets, Ilosone Drops, Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours. For children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days is recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base), in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 100 size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages.

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Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

NONPARASITIC CYSTS OF THE SPLEEN

(Concluded from Page 266)

spontaneously recedes or may be pushed back beneath the left lower ribs.

DIFFERENTIAL DIAGNOSIS

Splenic cysts must be differentiated from cysts or tumors of the omentum, pancreatic tail, mesentery, left lobe of the liver, and retroperitoneal space. If the cyst is displaced into the pelvis, it may be confused with an ovarian cyst, a floating kidney, or even a pregnancy. The clinical differentiation between cystic and solid tumors may not be easy by palpation alone because of the tense distention of the cyst.

Splenomegaly, which may be due to a myriad of causes, must be ruled out. Hodgkin's disease, leukemia, malaria, lues, and Banti's splenomegaly may be diagnosed by appropriate hematologic, serologic, or liver function tests. Bone marrow or superficial lymph node biopsy is frequently necessary.

Splenic cysts of echinococcus origin must also be considered. Here the history is important. These arise usually from the upper pole of the spleen and may be identified serologically by the (1) cutaneous allergy test of Cassoni, or (2) complement fixation test of Weinberg.

X-ray studies are of considerable aid in identifying splenic cysts. Flat films of the abdomen often show a large soft tissue mass arising in the left upper abdomen. The left leaf of the diaphragm is frequently elevated with impairment of motion demonstrated fluoroscopically. Barium gastrointestinal studies typically show a smooth indentation anteriorly on the greater curvature of the stomach in the region of the cardia and pars media. The stomach is displaced downward, to the right, and forward. Calcified areas similar to those of splenic artery aneurysm may be seen, but the characteristic bruit is absent.

Of the more recent diagnostic procedures, splenography described by Ellis,³ splenic cystography advocated by Eban,² pneumoperitoneum with splenovenography described by Wicht,¹⁵ and aortography utilized by many have become presurgical diagnostic aids.

TREATMENT

Surgical treatment of the nonparasitic splenic cyst is well standardized. In the past, less radical procedures such as puncture, incision and drainage, or cyst excision were frequently carried out when the spleen was thought essential to sustain life or its excision was accompanied by too much morbidity. Splenectomy is now the treatment of choice unless very extensive adhesions are found, which would present serious technical problems. The risk

of elective splenectomy currently in most series is less than 1 per cent.

SUMMARY

A case of non parasitic splenic cyst in a 22-year-old postpartum female is reported. This is a relatively rare disease often associated with pregnancy. Classification of the cysts into primary and secondary types is described and the histological differences reviewed. Primary splenic cysts result from an embryologic defect.

Treatment of splenic cyst is splenectomy, and the prognosis is excellent.

ACKNOWLEDGEMENT

The authors are indebted to Doctor James W. Mold for pathological interpretation and assistance.

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208A Governor Street, Providence, R.I. 02906

IT ALL DEPENDS ON THE POINT OF VIEW

... the medical literature is a carefully screened series of selected essays and short subjects. It contains more fact than fantasy but certainly presents a biased viewpoint of our over-all performance in this country. It should be taken with a grain of salt.

... From Editorial by Alvin K. Merendino, M.D. in *Am. Journal Surg.*, March 1967

PHYSICIANS SERVICE IN 1966

Report of Arnold Porter, M.D., President, at the 18th Annual Meeting of the Corporation, at Providence, R. I., March 15, 1967

It is my honor and privilege to present the 18th annual President's report. Not infrequently throughout the year I ask myself why your Board of Directors and members of the very busy Professional Advisory and Claims Committees actually *enjoy* giving so much of their time to your Physicians Service Plan. Certainly none of us would even consider devoting our energies to a commercial carrier without compensation. The answer, of course, is that we derive personal satisfaction from the social responsibility of providing a community service. This service is not only to the medical profession, as some would have us believe, but also a service to more than 650,000 subscribers, 76 per cent of the state's population. Undoubtedly the Plan's record of service to all concerned accounts for this widespread acceptance.

Actually most of the service provided to physicians by this organization also results either directly or indirectly in better service to subscribers. In addition to all the advantages of dealing with a single agency, this Plan offers such unique services as:

1. A sympathetic, informed and conscientious Board of Directors elected by this corporation;
2. The interest and influence of a readily accessible assistant director whose primary responsibility is Physicians Service affairs;
3. A professional relations representative who visits staff rooms to gather questions, complaints and suggestions;
4. A continuing program of newsletters, pamphlets and bulletins, to keep the profession fully informed on Physicians Service developments;
5. An advisory and training service for doctor's secretaries provided by Plan representatives in the doctor's office; and
6. Committees from the practicing medical community who volunteer a considerable amount of time for the adjudication of claims and assigning, evaluating, and updating fee schedules, as well as expanding old and providing new benefits to subscribers.

An excellent and timely example of this is the new benefit provisions in the revised Blue Cross-Physicians Service "65" Plan to be presented for your approval this afternoon. The need for improvement was brought to our attention by complaints from subscribers and physicians during the

first few months of the present "65" plan's operation. I cannot imagine, in addition to all the services listed above, this kind of flexibility or this kind of responsiveness to subscribers' and physicians' needs being made available by any commercial company underwriting health protection.

In addition to all this, your Physicians Service Plan administers the Part B portion of Federal Medicare for you and your patients, with all the above listed services also available for this phase of your practice. Your Physicians Service Plan is an excellent buffer between you and the Federal Government. Admittedly, there is presently some confusion in this program here in Rhode Island as in the rest of the country. However, new regulations and experience will in time bring order to apparent chaos.

In addition to Medicare, it is my firm conviction that Physicians Service is best qualified to administer the physicians payments portion of Title XIX in Rhode Island. A request to consider this proposal was made to the State in 1966 but to date there has been no reply. It is a matter of fact that the U. S. Department of Health, Education and Welfare has appointed Blue Cross and Physicians Service to administer Title XVIII (Medicare), utilizing the Plan's experience and capability for a number of efficiency reasons; the same reasoning could be applied to our case for handling Title XIX in Rhode Island.

Many elderly persons covered by Title XVIII will also qualify for Title XIX benefits, which could result in the same person, and the provider of care, dealing with two separate agencies on a single claim. Physicians Service could readily handle the additional step of providing Title XIX physicians' benefits with little additional effort, and it should result in considerable savings in time and money to the State and to the taxpayers, as well as reducing the ever increasing mass of paperwork facing the physician and the patient. As of October 1966 nineteen Blue Shield Plans were administering all or part of Title XIX programs, and twenty-seven other Plans were under consideration for such roles.

Among the advantages of our Physicians Service Plan, I mentioned the fact that committees from the practicing medical community have an active role in the development of new Physicians Service benefits. In this regard we are now investigating

the possibility of making available to the public a new contract with no income limits which would pay the doctor's "usual and customary" charge. I know that the great majority of physicians in the State realize that inevitably prepaid health care must soon be available to all our citizens at a predetermined and, if possible, reasonable cost. Good medicine costs money. The government realizes this fact. Any compromise with quality should not be tolerated, whatever the savings might appear to be.

Since its inception in 1949 the medical profession in this State has underwritten, and still is underwriting, the Physicians Service Plan by supplying "service benefits" for surgical services to low income subscribers at reduced fees.

However, three factors have significantly reduced the original need for low-income service benefit plans:

1. Federal and state programs have taken over a major portion of the responsibility for providing health care benefits to the aged and lower-income segments of the population that Physicians Service had formerly provided on a voluntary basis;
2. Our inflationary economy, resulting in increasing wages and salaries, has meant that more and more people are now enjoying incomes above the limits of Plans A and even B.
3. There is a growing demand from major purchasers of health care protection for paid-in-full benefits without income tests for subscribers — as more and more nationwide labor contracts include this coverage in their settlements, such as the steel and auto industries.

These factors, with others, have combined to produce a new and different need from that which we recognized in 1949. We must now act to meet these new needs as well as the desires of the present economy.

Lest our impatience become a hindrance, however, we must recognize that there are many problems in developing a full "usual and customary" program, not the least of which is structuring a rate that will be within the range of the average citizen. Physicians Service does not have the taxing power of the U.S. Government to finance unlimited benefits, even though we must eventually match the pattern of benefits established by tax-supported programs. Therefore, the keynote must be "progress, with patience."

I am confident, though, that with your proper understanding of Physicians Service limitations, with constructive criticism where such is due, and yet — above all — with your continuing support of its aims, we can maintain — and even improve

— the fine record of service to physicians and the community that this organization has established over the years.

I thank you for listening; I have enjoyed this opportunity to speak out. I am looking forward to a coming year of progress for this Physicians Service Plan, and I invite each of you to enjoy it with me.

THE DEPARTMENT OF HEALTH, EDUCATION AND WELFARE HAS SET RIGID REQUIREMENTS FOR THE CERTIFICATION OF CLINICAL LABORATORIES IN REFERENCE TO THE PERFORMANCE OF LABORATORY EXAMINATION ON RECIPIENTS OF THE MEDICARE BILL, INCLUDING SECTION 19.

WE HERE AT THE HOPKINS MEDICAL LABORATORY TAKE GREAT PLEASURE IN ANNOUNCING THAT WE MEET ALL THE REQUIREMENTS SET FORTH BY THE DEPARTMENT OF H.E.W.

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RHODE ISLAND MEDICAL SOCIETY PHYSICIANS SERVICE

Report of 18th Annual Meeting of the Corporation, March 15, 1967

The 18th annual meeting of the Corporation of the Rhode Island Medical Society Physicians Service was held in the Garden Room at the Sheraton Biltmore hotel in Providence, R.I., on Wednesday, March 15, 1967. The meeting was called to order by the President, Dr. Arnold Porter, at 5:15 p.m. A heavy snowstorm in the afternoon prevented the attendance of a sizable representation of the Corporation, but the following members were in attendance: Rocco Abbate, M.D., Charles J. Ashworth, M.D., Chelcie C. Bosland, Ph.D., Mr. J. Austin Carroll, Joseph Caruolo, M.D., Mr. George W. Chaplin, Stanley D. Davies, M.D., Alvin G. Gendreau, M.D., John F. W. Gilman, M.D., Seebert J. Goldowsky, M.D., John P. Grady, M.D., Edmund T. Hackman, M.D., Herbert F. Hager, M.D., Mr. John J. Hall, Milton W. Hamolsky, M.D., Arthur E. Hardy, M.D., Waldo O. Hoey, M.D., Rev. Joseph L. Lennon, O.P., Robert V. Lewis, M.D., William MacDonald, M.D., Earl J. Mara, M.D., Peter Mathieu, M.D., William McDonnell, M.D., Gustavo, A. Motta, M.D., Judge Florence K. Murray, Edwin B. O'Reilly, M.D., Frederick Peirce, Jr., M.D., Arnold Porter, M.D., William A. Reid, M.D., Carl S. Sawyer, M.D., Richard P. Sexton, M.D., Stanley D. Simon, M.D., John Turner II, M.D., and Henry M. Tyszkowski, M.D.

Also present were Messrs. Arthur F. Hanley, executive director, Frank Adae, associate executive director, Joseph Sullivan, assistant director, J. Lewis Eddy, director of professional relations, Harold Conway, claims manager, John Anderson, public relations manager, Dr. Robert R. Baldrige, medical consultant, William E. McCabe, legal counsel, and John E. Farrell, executive secretary.

ANNUAL REPORT OF THE SECRETARY

Mr. George W. Chaplin, secretary, noted that his annual report had been included in the handbook submitted to the members of the Corporation prior to the meeting. (Copy of this report is made part of the official records of this meeting.)

Action: A motion was made, seconded and voted that the annual report of the secretary be approved and placed on record.

ANNUAL REPORT OF THE TREASURER

In the absence of Mr. James R. Donnelly, treasurer, the Secretary read the annual report of the treasurer, submitted as follows:

"Once again it is a pleasure to report on the financial operation of Physicians Service for the past year.

Subscriber Income of \$13,003,055.12 showed an increase of \$389,394.90 and Income on Investments rose \$69,413.07 to a total of \$179,942.38 for a Total Gross Income of \$13,182,997.50, \$458,807.97 more than the previous year.

Surgical-Medical payments to the Doctors increased \$478,010.20 for a total of \$11,787,953.05. This amount represents 89.4 per cent of Total Income.

Operating Expenses advanced \$100,532.96 to a total of \$938,350.72 which is 7.1 per cent of Total Income.

Net Gain for the year is \$456,693.73 as compared with a Gain of \$576,428.92 for last year.

Long Term Investments of \$3,793,993.93 and approximately \$800,000 in short term U.S. Treasury Bills have benefited from the prevailing high interest rates and earned the amazing total Investment Income of \$179,942.38. This amount represents 40 per cent of the Net Gain.

Enrollment now stands at 653,117 having increased 5,258 during the year.

Number of cases handled during the year was 335,137.

As was expected 1966 proved to be a difficult year with many problems to solve in connection with the inauguration of the Federal Medicare plan, but with fine efforts on the part of the staff and good cooperation from the Doctors and the Government, we now have a smooth and effective Medicare operation. We have met the challenge of Medicare with courage and determination and we shall continue to carry on as the leader of health insurance programs in Rhode Island.

Respectfully submitted,

JAMES R. DONNELLY, *Treasurer*"

Action: A motion was made, seconded and voted that the annual report of the treasurer, as submitted, be received and placed on record.

ANNUAL REPORT OF THE PRESIDENT

Dr. Arnold Porter read his annual report, copy of which is made part of the official minutes of the meeting.

Action: A motion was made, seconded and voted that the annual report of the President be received and placed on record.

NOMINEES TO THE BOARD OF DIRECTORS

In the absence of Dr. Stephen Hoye, secretary of the R.I. Medical Society, Dr. William A. Reid reported that the House of Delegates of the Society

had nominated for three-year terms on the Board of Directors the following:

Frederick C. Eckel, M.D., of Westerly
Waldo O. Hoey, M.D., of Providence
Earl J. Mara, M.D., of Pawtucket
John Turner II, M.D., of Providence

Action: A motion was made, seconded and voted that the physicians nominated by the R. I. Medical Society be elected as members of the Board of Directors to serve until the annual meeting in 1970.

* * *

For the Nominating Committee of Physicians Service Doctor Reid reported as nominees for three-year terms each the following:

Mr. George W. Chaplin, Vice President
Industrial National Bank

Mr. Charles V. McCaffrey, President
Valley Gas Company, Cumberland

He also reported that Mr. L. Delphis Garipey, selected by the committee as a nominee for the Board had withdrawn his name, and the committee therefore asked unanimous consent of the Corporation at this meeting to submit a nominee other than Mr. Garipey.

Action: A motion was made, seconded and voted that the Corporation approve of the submission of a substitute nominee for that of Mr. L. Delphis Garipey.

* * *

Doctor Reid reported that the Nominating Committee submitted as a third nominee for the Board of Directors Mr. Albert Bonte, Vice President of Bonte Industrial of Woonsocket, R.I.

Action: A motion was made, seconded and unanimously voted that Messrs. George Chaplin, Charles V. McCaffrey and Albert E. Bonte be elected for three-year terms each on the Board of Directors of Physicians Service.

COMMENDATION OF RETIRING BOARD MEMBERS

Doctor Porter paid tribute to Messrs. James R. Donnelly, retiring treasurer, and Mr. Albert Christopher for their long and valued service to the Corporation.

Action: A motion was made, seconded and unanimously voted that the Secretary convey to Messrs. Donnelly and Christopher the Corporation's deep appreciation for their contribution of the valuable time and counsel to further the aims and development of Physicians Service programs through the years.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Arthur F. Hanley, executive director, gave a brief oral report on the expansion of the staff work during the year, particularly as regards the administration of the federal medicare program in addition

to the Physicians Service and Blue Cross plans. He called attention to the study underway, as noted by the President in his report, on the development of a comprehensive medical service plan based on a reasonable and customary fee basis rather than an indemnity schedule.

Mr. Hanley paid tribute to the fine administrative staff, and he introduced several of those present at the meeting.

Action: A motion was made, seconded and voted that the report of the executive director be approved and that the Corporation express through him its appreciation to the entire staff for their loyal and efficient service.

PROPOSED REVISION OF THE "65" PLAN

Doctor Porter noted that the members of the Corporation had received prior to the meeting a memorandum listing proposed revision of the "65" plan. (Copy of the proposed revisions is made part of the official minutes of this meeting.)

Action: A motion was made, seconded and voted that the proposed revisions of the "65" plan, as submitted to the Corporation be adopted.

REPORT OF BOARD OF DIRECTORS ON NEW OR REVISED BENEFITS

Doctor Porter reported that at a meeting of the Board of Directors held two days previous, on March 13, 1967, new and revised benefits had been approved, and due to the short interval between that meeting and the Corporation meeting it was not possible to mail a copy of the action to the members of the Corporation. Therefore a copy was distributed to each member present at the meeting. (Copy of this report is made part of the official minutes of the meeting.)

Action: A motion was made, seconded and voted that the report of the Board of Directors relating to new or revised benefits, as submitted, be approved and implemented.

ADJOURNMENT

The business meeting of the Corporation was completed and adjournment taken at 6 p.m., after which the members were guests of the Corporation at dinner.

Respectfully submitted,
GEORGE W. CHAPLIN
Secretary

ANNUAL REPORT OF THE SECRETARY

To the members of the Corporation:

A special meeting of the Corporation of the Rhode Island Medical Society Physicians Service was held at the Rhode Island Medical Society Library in Providence on January 26, 1966. The purpose of this special meeting was to consider bylaw changes as submitted by the Board of Directors. All the proposed changes were adopted. At this meeting,

(Continued on Page 273)

RHODE ISLAND MEDICAL SOCIETY PHYSICIANS SERVICE
FINANCIAL STATEMENTS AS OF DECEMBER 1, 1965 AND 1966

STATEMENT OF INCOME AND EXPENSE:	Dec. 31, 1966	Dec. 31, 1965	Increase (Decrease)
Income:			
Received from Subscribers	\$13,003,055.12	\$12,613,660.22	\$389,394.90
Income from Investments	179,942.38	110,529.31	69,413.07
Total Income	\$13,182,997.50	\$12,724,189.53	\$458,807.97
Expenses:			
Claims Payments	\$11,787,953.05	\$11,309,942.85	\$478,010.20
Operating Expenses	938,350.72	837,817.76	100,532.96
Total Expenses	\$12,726,303.77	\$12,147,760.61	\$578,543.16
Net Gain (or Loss) to Reserves	\$ 456,693.73	\$ 576,428.92	(\$119,735.19)
Comparative Balance Sheet:			
Assets:			
Cash in Bank and on Hand	\$ 888,183.53	\$ 1,154,819.46	(\$266,635.93)
Accounts Receivable	771,660.32	451,823.71	319,836.61
U.S. Government Bonds	4,592,671.71	3,745,898.58	846,773.13
Prepaid Expenses	150.00	.....	150.00
Total Assets	\$ 6,252,665.56	\$ 5,352,541.75	\$900,123.81
Liabilities:			
Accounts Payable	\$ 1,006,485.85	\$ 1,082,517.90	(\$76,032.05)
Accrued for Claims	2,169,522.00	1,744,876.00	424,646.00
Unearned Subscriptions	321,211.30	337,314.56	(16,103.26)
Other Liabilities	7,700.39	7,200.00	500.39
Total Liabilities	\$ 3,504,919.54	\$ 3,171,908.46	\$333,011.08
Reserves:			
Reserve for Excess Losses	\$ 1,747,746.02	\$ 1,180,633.29	\$567,112.73
Statutory Reserve	1,000,000.00	1,000,000.00	.....
Total Reserves	\$ 2,747,746.02	\$ 2,180,633.29	\$567,112.73
Total Liabilities & Reserves	\$ 6,252,665.56	\$ 5,352,541.75	\$900,123.81
Distribution of Physicians Service Dollar:			
Claims Expense .....	.894	.889	.005
Operating Expense .....	.071	.066	.005
Added to Reserves .....	.035	.045	(.010)
Total Spent	1.000	1.000	.....

COMPARISON OF STATISTICS — YEARS 1965 and 1966

	1966	1965	Increase (Decrease)
Subscribers	653,117	647,859	5,258
No. of Firms Buying Physicians Service	2,104	1,911	193
Number of Participating Physicians	1,021	1,008	13
Total of Claims Paid	\$ 11,787,953.	\$11,309,943.	\$ 478,010.
Total of Claims Paid Since Start of Plan	\$108,959,147.	\$97,171,194.	\$11,787,953.
Total Assets	\$ 6,252,666.	\$ 5,352,542.	\$ 900,124.
Total Income	\$ 13,182,998.	\$12,724,190.	\$ 458,808.
Total Reserves	\$ 2,747,746.	\$ 2,180,633.	\$ 567,113.
Operating Expenses	\$ 938,351.	\$ 837,818.	\$ 100,533.
Operating Expense %	7.1%	6.6%	.5%
Ratio of Claims to Income	89.4%	88.9%	.5%
Number of Cases Paid:			
Surgeons*	126,351	121,078	5,273
Assistants*	15,389	16,653	(1,264)
Anesthetists*	34,687	35,425	(738)
Medical	24,957	26,847	(1,890)
X-Ray and EKG	132,352	142,268	(9,916)
Other O/P Services	1,401	493	908
Total	335,137	342,764	(7,627)

*Maternity Cases (Included in Above) 8,950 9,475 (525)

Number of Months Expenses in Reserves:

Statutory Reserve	\$ 1,000,000.	\$ 1,000,000.	\$
Contingency Reserve	1,747,746.	1,180,633.	567,113.
Maternity Reserve	546,011.	554,186.	(8,175)
Total Reserves	\$ 3,293,757.	\$ 2,734,819.	\$ 558,938.
Monthly Expenses (Average for Year)	\$ 995,385.	\$ 952,852.	\$ 42,533.
Number of Months Expenses in Reserve	3.31	2.87	.44

REPORT OF SECRETARY

(Concluded from Page 271)

also, thirteen changes were made in the Professional Services Index.

The 17th Annual Meeting of the Corporation was held at Sheraton Biltmore Hotel in Providence on March 14, 1966. At this meeting the Corporation received and placed on record the annual reports of the Secretary and of the treasurer, and also the annual address of the President.

The Corporation elected for three-year terms each four nominees submitted by the House of Delegates of the R.I. Medical Society, as follows: Drs. Edmund T. Hackman of Warwick, Frederick A. Peirce of Newport, Arnold Porter and Stanley D. Simon, both of Providence. As representatives of the public, for three-year terms each, the Corporation elected Professor Chelcie C. Bosland of Brown University, Mr. J. Austin Carroll, Vice President, Providence Washington Insurance Company of Providence, and Reverend Joseph L. Lennon, O.P., Dean, Providence College.

At this annual meeting the Corporation adopted changes in Article VI of the bylaws.

Annual Meeting of the Board of Directors

The annual meeting of the Board of Directors was held on March 17, at the Hope Club in Providence. At this meeting the following were elected as officers of the Corporation:

- Arnold Porter, M.D., President
- Earl J. Mara, M.D., Vice President
- George W. Chaplin, Secretary
- James R. Donnelly, Treasurer

The Board also elected the standing committees as authorized under the bylaws.

During 1966 the Board of Directors held nine meetings and the Executive Committee of the Board one. At each meeting it reviewed monthly financial statements, approved (of) investments, considered committee recommendations, and in general carried forward the work of the Corporation. Major matters in which the Board was involved during the year included the filing of rates in connection with which it was voted that starting in 1967 the indemnity schedules shall be directly related to changes in the Consumers Retail Index, with 1965

as the starting base; the approval of a joint Blue Cross-Physicians Service "65 Plan"; the approval of Physicians Service to contract as the fiscal carrier for the federal government for Part B of the so-called Medicare program under the amended social security law; the appointment of Dr. Robert R. Baldrige as a salaried medical advisor to the administrative staff; the continued financial support of the Kent County Hospital Home Care program for an additional two years; the adoption of changes in the professional services index as recommended after study by the Professional Advisory Committee; and a study of a deferred compensation plan for participating physicians.

Respectfully submitted,
GEORGE W. CHAPLIN
Secretary

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*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.



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Ames

RELIGION AND MEDICINE

Recently there has been a revival of interest in the relationship between religion and medicine. Scientific medicine, unsupported, is not always a sufficient means for treating the sick person. A way must be found to minister to the "whole man." Man has a spirit as well as a body, and this may often be reached only through religion. The priesthood of old, in fact, often had the leading responsibility for the care and treatment of the sick, but this too failed to satisfy the "whole man."

With the maturing of the science of medicine and a better understanding of the roles of the respective professions, a more rational and complete treatment program can more readily be developed in order to enhance recovery of the sick. The AMA Committee on Religion and Medicine has attempted to bring the two professions to a better understanding and appreciation of their respective responsibilities. Three local groups have pursued these objectives.

The Rhode Island Medical Society has organized a Committee on Medicine and Religion. It has taken its role in the community very seriously. New moral issues relating to medicine, such as birth control, have been carefully considered. Reports and recommendations will be made from time to time. Problems affecting the major faiths will be studied.

The Rhode Island District Branch, American Psychiatric Association, has also formed a Committee on Psychiatry and Religion, prompted and stimulated by its parent organization, the APA. A section on religion has interested chaplains and psychiatrists alike in the problems of the patient and his reaction to his sickness.

The Rhode Island Branch of the Academy of Religion and Mental Health has been operative for five years, meeting bi-monthly at Rhode Island College. At its meetings the clergy, physicians, psychiatrists, psychologists, and social workers have actively participated in discussions of current social problems, particularly as relates to Rhode Island. Mutual understanding between the professions and their respective roles has been stressed.

Such healthy exchanges of views, the aim of which is better patient care, lead to mutual understanding and respect. Our hospitals, often founded by religious groups of the various faiths, many bearing names honoring the original benefactors or having religious significance, are appropriate refuges for the pursuit of this dual goal.

"To make man whole," the aim of both religion and medicine, deserves our whole hearted interest and support.

END OF ROAD IN SIGHT?

Erythroblastosis foetalis, a destructive disease of the newborn, had long remained a medical conundrum. The mystery began to unravel in 1940 when Landsteiner and Wiener announced the discovery of a factor in certain human blood specimens detectable by serum containing antibodies to the blood of rhesus monkeys. They designated this new factor the Rh factor. Within months Philip Levine and his co-workers had related the Rh factor to erythroblastosis. An Rh negative mother mated to an Rh positive father may produce a genetically predictable proportion of Rh positive infants. The mother becomes immunized to the infant's Rh positive red cells which have randomly entered her circulation. The entrance of these cells into the maternal circulation by somehow crossing the placental barrier has been satisfactorily confirmed. The resulting im-

munization of the mother to the fetal Rh factor produces marked hemolysis in the infant. The proliferation of erythroblasts is not a disease, but a manifestation of active red cell regeneration in response to hemolysis.

Wallerstein in 1946 first described the treatment of severe erythroblastosis of the new born by simultaneous removal and replacement of blood. Exchange transfusion was perfected and popularized by Diamond and his group. This important advance, now widely used, has not, however, prevented stillbirth or even all neonatal deaths or neonatal disorders, such as kernicterus. Recent advances have brought this desirable goal closer.

Bevis of England in 1956 demonstrated the presence of blood pigments in the mother's amniotic

(Continued on next page)

fluid in the presence of fetal hemolysis. Detection of these pigments by spectrophotometric scanning has since been perfected. Fairweather and Walker of England and Freda and his co-workers in New York have developed transabdominal amniocentesis as a means of antepartum detection of anti-Rh hemolysis. In 1966 Freda reported more than 1,000 aminocenteses in some 400 immunized mothers. There were no major mishaps to either fetus or mother. By early detection he accomplished a significant reduction in the number of stillbirths and neonatal deaths. In addition, no unaffected baby was subjected to premature delivery or otherwise unnecessary cesarean section. The procedure has since been widely adopted.

Efforts have recently been directed toward extending the usefulness of transabdominal amniocentesis. Liley of New Zealand in 1964 described a technique of fetal intraperitoneal transfusion by transuterine needle puncture. Although this method has had some degree of success, the inherent dangers have inhibited its wide acceptance and accidents have been reported. An even more spectacular procedure, in utero exchange transfusion, was first reported in 1964 by Freda and Adamson. The operation consists of hysterotomy, delivery of a leg, exchange transfusion, and finally closure of the amniotic sac, uterus, and abdominal wall. The first infant did not survive. The operation has since been repeated several times, but only one success — in a severely affected baby — has been reported. It seems very unlikely that this flashy but hazardous operation will ever attain popularity or be more than an occasional tour de force.

Now, however, an apparently classical solution to the problem of erythroblastosis appears on the horizon. It has long been known that passive immunity induced by administration of antibody-containing proteins is capable of suppressing the specific

active immunity that follows injection of an antigen. Attempts to accomplish this result in erythroblastosis were initiated about 1960 by Freda, Gorman, and Pollack in New York and independently by Finn and Clarke and their co-workers in Liverpool. All workers now use for this purpose a gamma globulin fraction containing a potent anti-Rh factor. The globulin was administered by intramuscular injection to Rh-negative mothers delivered of Rh-positive infants within 72 hours of delivery. Isoimmunization apparently is initiated during the first three days following delivery. Apparently, therefore, immunosuppression can be effectively undertaken during this period. A group of similar patients was used as controls.

In a recent joint report by Freda et al. of New York and Jennings et al. of Long Beach, California, 174 "at risk" mothers were treated by immunosuppression; not a single one developed antibodies. Contrariwise, 20 of 171 control mothers developed active Rh immunity.

Clarke of Liverpool has reported a similar experiment in which 75 of 78 treated "at risk" mothers remained free from Rh immunity, while only 59 of 75 untreated "at risk" mothers remained unimmunized to Rh.

Even more significant is a smaller series of cases collected by Freda from four clinics (his own in New York; Long Beach, California; Freiburg, Germany; and Liverpool, England). He reports 31 mothers who have completed a second pregnancy with an Rh-positive fetus. Of this number, not a single mother was actively immunized. Of 27 controls, 11 were actively immunized.

While these are preliminary results, they signify the imminent solution of a long unsolved or at best a partially solved problem. Progressing from the discovery of the immunological basis of erythroblastosis, we seem now to be on the threshold of total prevention.

AMINO ACID DISORDERS

In September of 1966 a symposium on amino acid disorders was held at the Children's Memorial Hospital in Chicago. The entire January 1967 issue of the American Journal of Diseases of Children was devoted to the papers read at the meeting. As early as 1908 Sir Archibald Garrod had suggested that four metabolic disorders (albinism, alkaptonuria, cystinuria, and pentosuria) had certain features in common. Their onset could be detected in the first days or weeks of life, familial occurrence was characteristic, and all were relatively benign and compatible with a normal life expectancy. Others had noted that these disorders frequently occurred among the offspring of consanguineous marriages.

While only one of the above is actually an amino

acid disorder, the point of the analogy is that they are all essentially enzyme disorders and have that and other features in common with the amino acid dyscrasias.

Methods of treatment have been developed for phenylketonuria, maple sugar disease, and cystathionuria. Screening procedures in the newborn have been worked out for the detection of a number of the conditions.

It would not be appropriate here to attempt a strained simplification of this complex subject. The papers, for the most part highly technical, fill a 175-page issue of the Journal. To give our readers a glimpse into this never-never land of enzymatic disorders, we shall list the considerable variety of

conditions discussed. They include phenylketonuria, tyrosinemia, branched chain amino acid disturbances (including maple syrup disease, hypervalinemia, and isovaleric acidemia), hydroxykynureninuria, acetphenetidin sensitivity, histidinemia, homocystinuria, pyridoxine deficiency and dependency (including cystathioninuria), hyperglycinemia, hypersarcosinemia, disorders of the ornithine cycle (including lysine intolerance, hyperammonemia, hyperlysinemia, citrullinuria, and arginosuccinic aciduria), and hydroxyprolinemia and hyperprolinemia.

Mental retardation is a common finding. Detec-

tion and screening techniques are in varying stages of development. Most of the disorders will respond to dietary treatments, usually with satisfactory growth and development if irreversible changes have not occurred.

While it is not generally within the resources of the general practitioner to detect or treat these exotic conditions, it is important that there be cognizance of their existence and dissemination of knowledge about their grosser characteristics. Only thus can the small patients who are victims of these defects be detected and their disorders recognized in time to permit early treatment and prevention of progressive deterioration.

LIBERALIZING ABORTION LAWS

If only medical considerations complicated the effort to liberalize appropriately our Rhode Island abortion law, the Medical Society might more clearly indicate the extent and definition of needed amendments. Religious, legal, and social implications of a more liberal law, however, make the matter far more complex for legislators.

The religious aspects of abortion bear upon theological concepts as to when, if ever, during fetal existence the spirit fuses with the physical organism. Even allowing for the voluntary nature of the law's application, the emotional impact of divergent yet sincere beliefs constitutes an imposing hurdle for our legislators.

Legally the rights of a fetus must be defined. When is the fetus to be considered legally an indi-

vidual whose rights under the constitution may not be abrogated with due process of law?

The social factors in abortion stem from the community's sense of morality and compassion where a pregnancy results from certain acts of criminally sexual or incestuous assaults. Here the medical profession becomes the instrumentality by which a pregnancy is terminated in those instances where the community's conscience judges the action and resulting pregnancy as repugnant and undesirable.

There are, indeed, specific medical reasons for liberalizing our abortion law as it applies to individual cases, but we are far away from appropriate legislation in a community which has not yet achieved a comfortable unanimity in the methods of pregnancy prevention.

PROGRESS IN THE MEDICAL SCIENCES

On March 15, 1967 the Commonwealth Fund of New York City announced a grant of \$600,000 to Brown University to support its program in the medical sciences. This program, which covers the first two years of professional training, bases its curriculum upon a closely integrated four-year sequence of premedical studies.

The grant follows earlier support for feasibility and planning studies and for initial operations begun in 1963.

The program in medical education at Brown differs from the usual two-year medical course. It is based on concepts hopefully addressed to changing intellectual and professional requirements of future physicians. It is conducted as a six-year sequence of undergraduate and graduate studies, integrating premedical and preclinical education and leading to the Master of Medical Science degree.

Graduates of the program will be equipped to

complete their final two years of M.D. training, that is, the clinical phase, at another medical school, or to undertake doctoral studies in a biomedical field at Brown or elsewhere. Since the Brown curriculum requires full-time study during four summers over its six-year span, it is the equivalent of seven years of conventional education. The program, reported to be demanding and rigorous, has the following main features:

1. A coherent, sequential curriculum planned and taught by a single faculty. There are no separate departments, such as physiology or biochemistry, to lay claim to part of the curriculum.

2. Solid undergraduate grounding in mathematics, chemistry, and physics; and presentation at the end of the junior year of college of many subjects ordinarily taught in the first or second year of medical school — for example, cellular biochemistry and physiology, and embryology and genetics.

(Continued on next page)

3. Advanced studies in the senior collegiate year and first two graduate years of such fields as microbiology and pathology, as well as of new interdisciplinary courses — biological systems, for instance — taught on a "team" basis.

4. Wide opportunity for students to undertake individual study, culminating in an independent research project as the basis of the master's thesis, required of all students.

5. Education in the clinical sciences of medicine and their relevance to the basic sciences from the first year of college onward.

6. Studies throughout the six years in the social and behavioral sciences and the humanities.

The program in Medical Science has at this writing fourteen full-time teachers on campus, largely in the basic sciences. Another ten faculty members lead the clinical aspects of the Brown medical course; these teachers are full-time staff members of

Providence hospitals, jointly appointed by the University and the hospitals concerned. Two hospitals — Rhode Island and Roger Williams General — are currently participating, and a third — Miriam Hospital — will join in the next academic year.

The first class to enter the six-year medical science curriculum at Brown, now in its fourth undergraduate year, will next year begin the graduate phase. The purpose of The Commonwealth Fund grant is to help offset the increased costs for additional faculty and the preparation of new courses and seminars, costs that will be incurred with the implementation of the graduate curriculum.

During the period of the grant, which will extend over three years, Brown will conduct a special fund-drive to raise \$17.1 million for the medical program. This will help to put the program on a solid financial footing, expand its facilities, and build up enrollment per class from its present fifteen students to fifty.

MEDLARS

The following press release published in full for the benefit of our readers announces an exciting development in regional library service. Computerized bibliographies will be most helpful in the "complete" searches where the articles appear under several subject headings. MEDLARS isn't intended to answer the "please find me a couple of articles on . . ." type of request. And, according to Mr. Hutchins, the Medlars Librarian at Countway, it is quicker and more economical to photocopy a page or so of the INDEX MEDICUS when a full list of citations appearing under one heading is desired. But, even with limitations, MEDLARS is the best news the reference worker has heard for many a day. Thank you, Countway.

* * *

The Francis A. Countway Library of Medicine (the Boston Medical Library and Harvard Medical Library) is now ready to accept requests from members of the New England medical community for literature searches by computer — known in library circles as MEDLARS (Medical Literature Analysis and Retrieval System), according to Ralph T. Esterquest, Librarian.

Since May 1966 the Countway has been serving as the New England Regional Search Center of MEDLARS. The central office of MEDLARS is in the National Library of Medicine in Bethesda, Maryland. The Countway is one of five medical

libraries in the country designated as a regional search center.

"Having come through a successful test period," Mr. Esterquest stated, "we feel confident that we can now deliver bibliographies of periodical articles with reasonable speed."

This is how MEDLARS works.

A physician wanting to read the latest information on angiosarcoma (for example) writes or calls MEDLARS REGIONAL SEARCH CENTER (NEW ENGLAND), Francis A. Countway Library of Medicine, 10 Shattuck Street, Boston, Mass. (Tel.: 617-734-3300, Ext. 109) He describes his subject as precisely as he can. The Search Center "formulates" the question in accordance with the nomenclature of the MEDLARS system. It goes through the computer, and in course a typed, tailor-made bibliography of periodical articles is machine-produced and sent to the inquiring physician.

The store of literature to which the system has access are the periodical articles that have been included in *Index Medicus* since January 1964. At present it takes from three to five weeks to deliver the product bibliography to the requesting individual. "It is anticipated that this time will be speeded up as we get practice and experience," Mr. Esterquest stated.

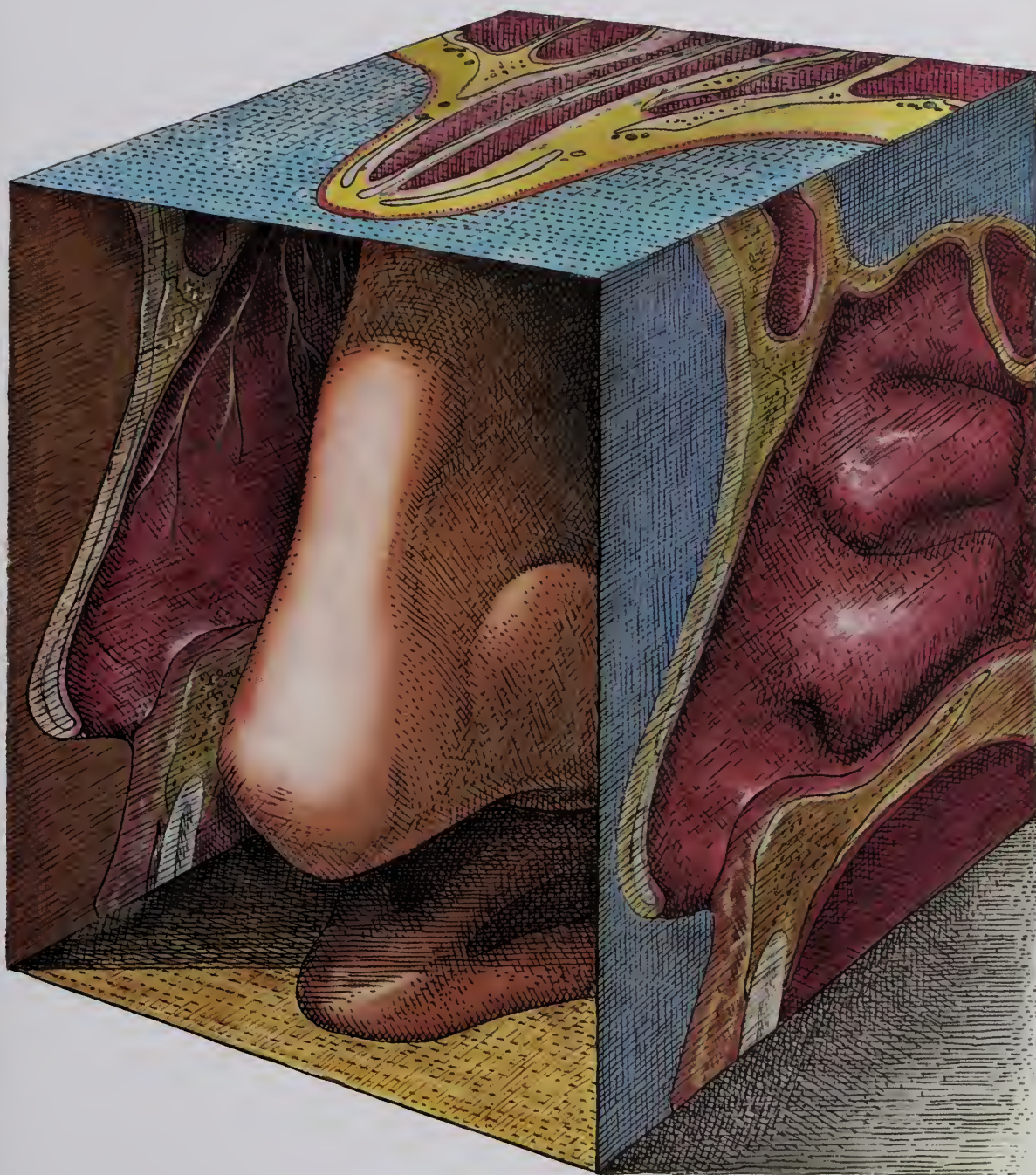
Any practicing physician in New England is eligible to request a search. There is no cost to the physician for this service.


DORSEY

spring 1967

Season

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this issue: the ubiquitous world of  summer allergies



the ubiquitous world of summer allergies

Donald L. Unger, M.D. • Clinical Assistant Professor, Department of Medicine (Allergy), Stritch School of Medicine (Loyola).

In the Spring a young man's fancy lightly turns to thoughts of—allergies. This is at least true of the 10% of the population who have hay fever and the 4% who have asthma.¹ The snow melts, the trees blossom and the noses run. Patients who were fine all winter may not be enthralled by the sight of the first robin or the blossoming of a crocus, for their appearances may precede the "sneezin' season."

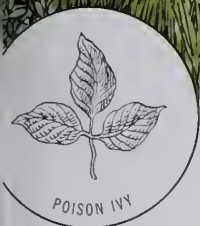
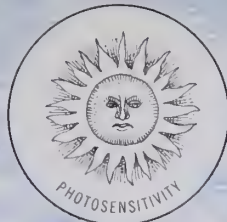
Allergies in general can be divided into winter allergies and summer allergies. In the winter the main problems are inside the house: e.g. dogs, cats, dust and feathers. Houses in the northern half of the country become so dry that it becomes essential to add humidity to the home; this is a far cry from the damp summer months with the moldy basements and need for dehumidifiers.

Early in April trees begin to pollinate, with each tree having about a two week period of pollination. A particular patient may be sensitive to only one tree and thus have his hay fever for such a short time that he thinks he has a cold.² The entire tree season starts about April 1 and ends about Memorial Day, al-

though all hay fever seasons are blurred and prolonged in the southern part of the country. Tree pollen is usually very heavy and a person may well have most of his exposure from those trees immediately surrounding his home.

Grasses pollinate from about May 15 until July 4, and cause "rose fever." Grass pollens are somewhat lighter and more buoyant than tree pollens, and are much more ubiquitous. While there are several varieties of grasses in the United States, they are so closely related antigenically that a person sensitive to one is generally sensitive to them all.³ Thus, while the tree season is really several small seasons intertwined, the grass season will usually result in symptoms for a more prolonged period. Obviously, a grass-sensitive patient will have trouble only when grass is pollinating—he will have to think of another excuse not to mow the lawn after July 4.

Ragweed is the "Big Daddy" of them all in the eastern two-thirds of the country. Pollination is generally from mid-August until the end of September, with the predicted lower counts and longer seasons



in the southern part of the country. Ragweed is a very light pollen which may be windborne for hundreds of miles. An interesting study was made in New York City, in which 90% or more of the ragweed plants were destroyed in three of the five boroughs; pollen counts done during the season were virtually identical in all five.⁴

Ragweed is, of course, the most common cause of hay fever and is associated with an incredible loss of man hours from work each year. Many is the patient who travels to areas where the pollen count is low, just to avoid having symptoms. There is no ragweed anywhere in the world except the United States and portions of Canada and Mexico.

While molds are present through the year, the most important ones predominate from April until November. An old wives' tale has ragweed ending with the first frost, when actually it ends a good month earlier. It is *Alternaria*—the kingpin of the molds—that meets a sudden demise with the first frost. *Alternaria*-sensitive patients are in their glory when there is snow on the ground, and might be ideally suited to man the radar stations in Alaska. In September and October, *Alternaria* counts are at their highest, perhaps associated with the burning of leaves. Other molds such as *Hormodendrum* and

Helminthosporium are associated with the warmer weather, as opposed to *Penicillium* and *Aspergillus* which are household molds.

Summer also means the return of our much maligned associates—bugs. Insects cause allergic symptoms by two methods: the bite or sting of the Hymenoptera group, and the inhalation of particles of the bodies of various insects. Wasp stings are the oldest known form of allergy, as they caused the death of one of the pharaohs in ancient Egypt.⁵ Bees, wasps and hornets account for many deaths in this country, and those sensitive to them should carry special treatment kits at all times; a few minutes delay in the administration of epinephrine to such a patient, might be the difference between life and death. Inhalation of particles of insects may cause sneezing and wheezing in a susceptible individual.⁶ Both of these forms of insect allergy may be benefitted by hyposensitization.

The insect recognizes no professional bounds. He is as apt to bite the physician as the patient. So this season, beware of bugs. And beware, too, of poison ivy. That pleasant stroll through the woods and underbrush with the Boy Scouts might turn into a

(Concluded on following page)

to relieve  summer allergies

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nightmare for the botanically uninitiated in the causes of rhus dermatitis (poison ivy, poison oak and poison sumac). Although you may have been careful, your dog may not have noted that it wasn't clover he jumped through, but poison ivy. His return to your side may give you the rhus dermatitis that you so carefully avoided. That heavenly campfire may be emitting particles of rhus oil to produce an airborne contact dermatitis of the exposed areas of the body.

another fascinating, but rather infrequent type of summer allergy is physical allergy. Some people sneeze on exposure to sunlight, while others break out in rashes, usually on the exposed parts of the body. These rashes may well follow the administration of various photosensitizing drugs, e.g. demethylchlortetracycline.⁷ Another form of physical allergy and one that may be lethal in the summer, is cold allergy. Yes, I mean cold allergy, not heat allergy. The cool dip on a hot day with its consequent sudden chilling of the body, may be the coup de grace for a cold sensitive patient.⁸ It is customary to write "heart attack" on the death certificate, even though the victim may have been an 18-year-old boy who looks like a Greek god.

Lest the reader be depressed by this saga of afflictions associated with the warmer months, perhaps he should remember that it is also a time for swimming, baseball, lying in the sun and taking that long-planned vacation. So let's all join in a chorus of "In the Good Old Summertime," as we sneeze, wheeze and scratch. Be careful of your suntan lotion, however; it may cause you a contact dermatitis.

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summer allergies

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Pheniramine maleate	25 mg.
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Side effects: Occasional drowsiness, blurred vision, cardiac palpitation, flushing, dizziness, nervousness or gastrointestinal upsets.

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(Advertisement)

DISTRICT MEDICAL SOCIETY MEETINGS

NEWPORT COUNTY MEDICAL SOCIETY

The annual meeting of the Newport County Medical Society was held at the Newport Motor Inn on Wednesday evening 25 January, 1967 beginning at 8:25 p.m. The President, Dr. Richard Knowles presided.

The guest of the evening, Judge Arthur Carrellas, was introduced and spoke on the topic "Medicine and the Courts." He discussed some the current problem areas in court situations involving physicians directly or indirectly. He pointed out the basic rulings, some of considerable duration, and the more recent changes with their implications, and some of the areas that appear to be in a state of flux. A question period followed. The Society voted their thanks to Judge Carrellas and, after his leaving, the business meeting began.

The report of the Nominating Committee was accepted recommending that all officers serve another year. A motion to the preceding effect was made, seconded and duly voted. The President indicated his wish that all committees of the Society would remain the same for the coming year, including the recently named Utilization Committee consisting of Norbert Zielinski, M.D., Chairman, Charles Hall, M.D., and Charles Serbst, M.D. Minutes of previous meetings were accepted as read.

Dr. John Malone, Councillor, reported the view of the R.I. House of Delegates that the practice be continued of having meetings with our elected officials to discuss legislative matters pertinent to medical affairs. He also discussed the plans of Physicians Service to phase out plan A and its implications to Title XIX.

Dr. Charles Dotterer, Delegate to the House, discussed further the problems in phasing out Plan A.

Dr. Charles Serbst, Delegate to the House, added his comments to the above and discussed extensively problems in Utilization and Certification procedures.

Dr. Frank Logler discussed the continuing problem of the standards and certification of Nursing Homes and expressed the view that the Society should maintain its keen interest in this important area.

Dr. Yilmaz Durodogan requested the Society support, with the local Cancer Society, a day for free-breast examination and pelvic examination with Pap smear. A motion to this effect was made by Dr. Serbst and seconded by Dr. Bestoso. After some discussion a motion to table was carried.

There being no further business the meeting was adjourned at 10:30 p.m. Attendance 27.

Respectfully submitted,
FREDERICK A. PEIRCE, JR., M.D.
Secretary

* * *

A special meeting of the Newport County Medical Society was called by the President, Dr. Richard Knowles and was held at 11:30 a.m. in the James Building of the Newport Hospital on December 12, 1966.

The purpose of the meeting was a discussion of the proposed fee schedule for Title XIX patients by the Dept. of Social Welfare, the intermediary. Dr. Knowles explained the situation briefly: the fee schedule as being instituted had not yet been approved by the R.I. Medical Society with the main problem lying with the proposed surgical payments which are comparable to Physicians Service Plan A.

After some discussion, no clearcut motion was agreed upon and the consensus appeared to be that further negotiations in this area should be left up to the R. I. Medical Society committee presently active for this purpose.

There being no further business, the meeting adjourned at 12:05 p.m. Attendance 17.

Respectfully submitted,
FREDERICK A. PEIRCE, JR., M.D.
Secretary

* * *

A joint meeting of the Newport County Medical Society and the Newport County Dental Society was held on 16 November, 1966 at the Hotel Viking.

With Dr. Gerald F. Rogers, President of the Dental Society presiding, the meeting was called to order at 8:50 p.m. After welcoming remarks he turned the floor over to Dr. Michael J. Brennen who introduced the guest speaker, Philip McCarthy, M.D., Boston dermatologist holding the position of Professor of Oral Medicine in Tufts Dental School.

He presented a highly informative and well received lecture on "Oral Pathology" with numerous excellent colored slides. He covered the following: Aphthous Stomatitis, various Monilial infections, Lichen Planus, Leukoplakia, Actinic Cheilitis, Carcinoma (squamous) of the tongue, and stomal lesions in ulcerative colitis.

A spirited question and answer period followed.

No business meeting was conducted by either Society.

(Continued on next page)

The meeting concluded at 10:05 p.m. Attendance — 56.

Respectfully submitted,
FREDERICK A. PEIRCE, JR., M.D.
Secretary

* * *

PROVIDENCE MEDICAL ASSOCIATION

A meeting of the Providence Medical Association was held at the Rhode Island Medical Society Library on Monday, February 6, 1967. The meeting was called to order by the President, Dr. Gustavo A. Motta, at 8:30 p.m.

Minutes of Previous Meeting

Doctor Motta announced that there would not be a reading of the minutes of the January meeting unless a request was made for such a reading, but the minutes would be published in the Rhode Island Medical Journal.

Report of the Secretary

Dr. Bertram H. Buxton, Jr., Secretary, reported that at a recent meeting the Executive Committee had acted on the following matters:

1. It approved of the appointment as delegate to the House of Delegates to complete the unexpired term of the late Dr. Walter Hayes of Dr. Henry Tyszkowski of East Providence.
2. It reviewed, approved and placed on file the 1966 financial report of the Association's Medical Milk Commission.
3. It approved of the appointment as the Association's official representatives on the Rhode Island Council of Community Services, Doctors Joseph Karas and Jay Orson.
4. It authorized the Executive Secretary to work with the New England Telephone Company on a study relative to the possibility of establishing a personal signaling service in the Greater Providence area. Members receiving an inquiry regarding this study are asked to give the matter careful and prompt attention.
5. It approved a survey of extended care facilities in the area for the purpose of creating a Medical Review Committee as required under the Title 19 of the Federal Social Security law.
6. It invited the acting medical director of Progress for Providence to meet with the Committee this month to explain in detail the plan of operation of the proposed Neighborhood Clinics or health centers.

Action: A motion was made, seconded and voted that the report of the Secretary as presented be received and placed on file.

Announcements by the Presidents

Doctor Motta reported that the Association had lost two members by death since its January meeting, Drs. Lucy E. Bourn and Youssef Menasha;

and he asked the members of the Association present at the meeting to stand for a moment of silent prayer.

* * *

The President also announced that the Chairman of the Program Committee had notified him that Dr. John Knowles, previously announced as the speaker at the March meeting, would be unable to be present and that Mr. Jerome Pollack, Dean of Medical Care Planning and Professor of Economics of Medicine at Harvard, would address the Association instead, speaking on "New Programs and Policies Affecting Medical Education and Practice."

Presentation of Membership Certificate

The President awarded a membership certificate to the member elected at the January meeting of the Association.

Scientific Program

Doctor Motta introduced as the guest speaker of the evening Dr. David Littman, of West Roxbury, Massachusetts, Cardiologist, West Roxbury Veterans Administration Hospital; Senior Associate in Medicine, Peter Bent Brigham Hospital; Associate in Medicine, Massachusetts General Hospital; Assistant Clinical Professor of Medicine, Harvard Medical School; Lecturer in Medicine, Tufts University Medical School, who spoke on "Methods of Diagnosis of Coronary Artery Disease and New Therapeutic Approaches."

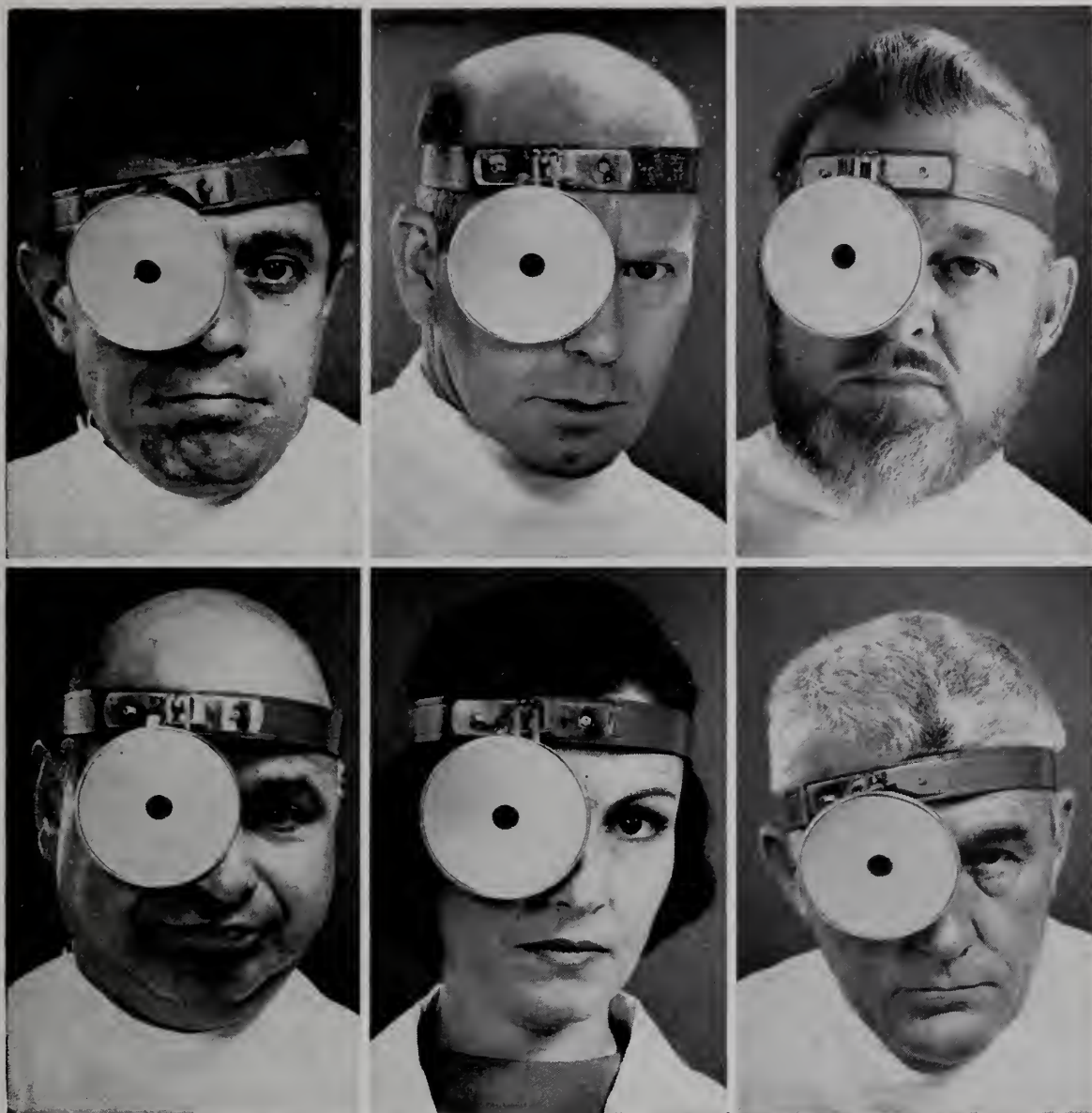
Dr. Littman prefaced his discussion of angina pectoris by stating that the mortality and morbidity associated with acute myocardial infarction had not changed during the past 25 years. The mortality remains between 25-40 per cent.

Angina pectoris he defined as a milder stage of or precursor to myocardial infarction. Of patients with clinically suspected angina pectoris, 50 per cent prove to have some other disorder. Of all available diagnostic technics today, a careful history is still the most important. The chest pain of angina is often nothing more than a vague discomfort. If not careful the doctor may unconsciously implant by leading questions the symptoms of angina into the patient's description of his complaints. Physical examination may produce no positive finding unless a fourth heart sound is elicited during an actual anginal attack.

Careful fluoroscopy may show coronary artery calcification. A resting EKG shows no abnormality in 50 per cent of the cases, although the remaining 50 per cent will show evidence of an old myocardial infarct or bundle branch block.

An exercise test consisting of 100 trips up and down 2 steps 9 inches high is a most important diagnostic procedure. The test imposes no great risk if the patient stops at the onset of pain or discomfort.

(Continued on Page 282)



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

Wrong! But that's no more preposterous than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more exacting. In fact, there are at least nine *specific differences* involving moisture content, purity, potency and speed of tablet disintegration,

which make the manufacture of Bayer® Aspirin so different.

These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to stay strong and gentle until they are taken.

So next time you hear someone say that *all* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.



PROVIDENCE MEDICAL ASSOCIATION

(Continued from Page 280)

Dr. Littman then discussed the effect of exercise on the patient with angina pectoris. He challenged the alleged mortalities in persons with angina pectoris so often related to snow shoveling. He believes there to be just as many infarction deaths when there is no snow and it is a known fact that more people die in church than at home. If physical exercise is the cause of most acute myocardial infarction deaths, why do more patients die at night in bed from coronary artery disease than during the day? Dr. Littman concludes that the "bed serves an excellent purpose for one or two functions, but being sick is certainly not one of them."

He posed the tantalizing question as to why we or the patient should want to know if angina pectoris is present since there is no known curative treatment for the disorder. Speaking for himself Dr. Littman stated that he would just as soon not know. He feels that well-meaning doctors may inflict more physical disability by informing the patient who then "carries his heart around in one hand for the rest of his life missing much that is worthwhile."

He stated the cineangiography is not always helpful in diagnosing angina pectoris since some patient showing evidence of obstruction may have severe anginal symptoms. Many of the more esoteric tests can lead to diagnostic error since absolute values assigned to laboratory tests may be quite misleading. "Don't be seduced by numbers," cautions Dr. Littmann.

Concerning treatment of angina, Dr. Littmann feels that an informal rather pragmatic talk with the patient so as not to frighten him, and motivating him, if possible, to stop smoking are important. The physician should attempt to allay the exaggerated fear of pain and death.

The concept of 5 years ago that the anginal patient had about 5 years on the average to live is just not true. Dr. Littmann states that he has followed anginal patients for 15 or more years and found that some may "get worse," some, however, remain static while some improve. It is important therefore, to try to instill in the patient that he is going to be "a 15 to 20 year man."

In using Peritrate® and other coronary artery dilators Dr. Littmann states that as many angina patients become progressively worse as improve. A double blind study is necessary in patients with a predictable number of anginal attacks per day (i.e. 20-50) to test the effectiveness of these drugs. Studies of this sort have not demonstrated the effectiveness of any of the coronary artery dilating drugs.

As for the "old stand-by," Nitroglycerin,® it has

often been shown that the anginal pain will subside just as quickly whether the patient takes the drug or not. Actually having a patient just "slow down" his gait, rather than stop altogether to rest, will result in the cessation of anginal pain and may contribute toward developing an increased tolerance to exercise by increasing myocardial blood supply.

It has been shown that anginal pain secondary to emotional upset lasts longer than the pain of effort since the released epinephrine takes a while to be metabolized. The pain of effort usually lasts 30-60 seconds, while that induced by emotion lasts longer. Nitroglycerin® may serve as a "psychologic crutch" but is probably no better than amyl nitrate. Both these drugs may prevent pain by reducing fear with its increased epinephrine production.

Dr. Littmann has tried to instruct suitable patients to "walk through" their anginal attacks or apply carotid pressure, since carotid stimulation has been shown to be effective in ablating anginal pain.

Mono-amino-oxidase inhibitors seem to be effective in about one half of the anginal patients and propranolol does seem to be effective in angina but is dangerous if congestive failure is present.

Premarin, D-Thyroxine, Nicotinic Acid, and Atropine-S have proved to be somewhat effective and apparently reduce cholesterol to some degree. Premarin in males has the disadvantage of feminizing effects and D-Thyroxine occasionally causes disturbances in cardiac rhythm. Nicotinic acid if given in doses of 4 to 8 gm. per day and Atropine-S although not yet available seem to be effective without hazard.

Although lowering the cholesterol levels in patients may have long term salutary effects in anginal patients, there is no immediate change in their symptoms.

Dr. Littmann stated that anticoagulants had no place in angina pectoris therapy.

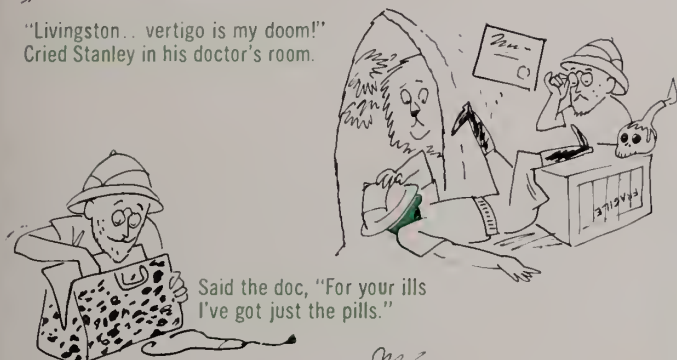
Of the several operations endarterectomy and internal mammary artery implantation are considered promising. There is a 5 to 10 per cent mortality associated with these operations, however; and as more cases are evaluated, it would seem that, although some patients are better postoperatively, some become worse due to further postoperative thrombosis.

The real question to be answered is whether an internal mammary artery implantation operation merely serves to interrupt temporarily the natural course of the disease process. Thus the same methods for evaluation of drugs should be applied to operative technics. Medico-legal implications of today may severely hamper the use of controls unless we have something which may be just as effective to offer the patient. Dr. Littmann believes that

(Continued on Page 284)



"Livingston... vertigo is my doom!"
Cried Stanley in his doctor's room.



Said the doc, "For your ills
I've got just the pills."

Said Stan,
"Antivert, I presume."

tablets/syrup **Antivert** stops vertigo (meclizine HCl, niacin)

Tablets: (meclizine HCl 12.5 mg. and niacin 50 mg.) Syrup: (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and niacin 25 mg.)

**Most widely prescribed anti-vertigo agent¹
Complete to moderate relief of symptoms
in 9 out of 10 patients²**

Antivert, the leading anti-vertigo product,¹ combines meclizine HCl, an outstanding drug for treatment of vestibular dysfunction, with niacin, a drug of choice for prompt vasodilation. Prescribe Antivert for your patients with vertigo, Meniere's syndrome and allied disorders.

Precautions and contraindications: Frequent, short-lived reactions include: cutaneous flushing, sensations of warmth, tingling and itching, burning of skin, increased gastrointestinal motility, and sebaceous gland activity. In explaining these reactions to the patient, it is suggested that they be regarded as a desirable physiological sign that the niacin is carrying out its intended function of vasodilation. Because of this vasodilation, severe hypotension and hemorrhage are obvious contraindications to Antivert therapy. Although the incidence of drowsiness and other atropine-like side effects such as dry mouth and blurring of vision is low, the physician should alert the patient to the need for due precautions when en-

gaging in activities where alertness is mandatory. Use in women of childbearing age: A review of available animal data reveals that meclizine exerts a teratogenic response in the rat. In one study a dose of 50 mg./kg./day (50 times the maximum recommended human dose) produced cleft palate in 2 of 87 fetuses when administered to the rat at critical times during the first 15 days of gestation. At doses of 125 mg./kg./day, meclizine will produce 100% incidence of cleft palate in the rat. At doses of 25 mg./kg./day, decreased calcification of the vertebrae and relative shortening of the limbs were also produced in the rat, but experts disagree as to whether this is a teratogenic response. While available clinical data are inconclusive, scientific experts are of the opinion that this drug may possess a potential for adverse effects on the human fetus. Consequently, consideration should be given to initial use of a nonphenothiazine agent that is not suspected of having a teratogenic potential. In any case, the dosage and duration of treatment should be kept to a minimum. Dosage: One tablet or one to two teaspoonfuls (5-10 cc.) t.i.d. just before meals. Specific requirements for individual patients should be determined by the physician. Supplied: Tablets in bottles of 100 and 500. Syrup in pint bottles. RX only.

References: 1. Based on 1966 data from independent physicians' market survey organization. 2. Scal, J. C.: Eye Ear Nose & Throat Month. 38:738 (Sept.) 1959.

Neobon[®] geriatric supplement helps keep them 'on the go'

Each capsule contains:

(1) Vitamins and Minerals	
Vitamin A (acetate)	2000 U.S.P. units
Vitamin D (ergocalciferol, U.S.P.)	200 U.S.P. units
Vitamin B ₁ (thiamine mononitrate, U.S.P.)	0.5 mg.
Vitamin B ₂ (riboflavin, U.S.P.)	0.5 mg.
Vitamin B ₆ (pyridoxine HCl, U.S.P.)	0.5 mg.
Niacinamide, U.S.P.	50 mg.
Calcium pantothenate, U.S.P.	5 mg.
Vitamin E (di-alpha tocopheryl acetate)	5 I.U.
Rutin	5 mg.
Cobalt (from cobalt sulfate)	0.033 mg.
Molybdenum (from sodium molybdate)	0.066 mg.
Copper (from copper sulfate)	0.33 mg.
Manganese (from manganese sulfate)	0.33 mg.
Magnesium (from magnesium sulfate)	2 mg.
Iodine (from potassium iodide)	0.05 mg.
Potassium (from potassium sulfate)	1.66 mg.
Zinc (from zinc sulfate)	0.4 mg.

(2) Hematopoietic Factors	
Iron (from ferrous sulfate)	3.40 mg.
Vitamin B ₁₂ (cobalamin concentrate, N.F., as Stablets [®])	1 mcg.
Vitamin C (ascorbic acid, U.S.P.)	50 mg.
(3) Digestive Enzyme	
Pancreatic substance*	50 mg.
(4) Gonadal Hormones	
Methyltestosterone, N.F.	1.0 mg.
Ethinyl Estradiol, U.S.P.	0.006 mg.
(5) Amino Acids	
L-lysine (monohydrochloride)	50 mg.
L-Glutamic acid	30 mg.

*Enzymatically active defatted material obtained from 250 mg. of whole fresh pancreas.

For older adults who require it, daily supplementation with Neobon can help overcome decreases in endogenous gonadal hormone production, as well as deficiencies of iron, vitamins and other nutritional factors. In a single convenient capsule, Neobon provides vitamins, minerals, gonadal hormones, hematopoietic factors, digestive enzymes, and amino acids—all selected for adjunctive therapeutic value in the geriatric syndrome. For example, one of the gonadal hormones in Neobon is ethinyl estradiol. It is more slowly metabolized in the body than natural estrogens or their esters.

Precautions: Contraindicated in patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast or prostate.

Dosage: One capsule, t.i.d. with meals, or as directed by physician.

Supplied: Bottles of 60 capsules. RX only.



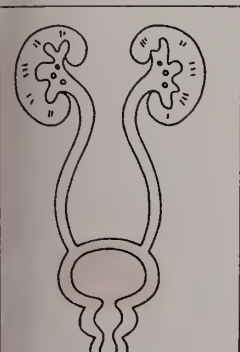
**J.B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
NEW YORK, N.Y. 10017**

The battle with bacteria: cystitis

Artist's conception of cystoscopic view of bladder showing congested blood vessels and edema around ureteral orifice.



Consider Gantanol (sulfamethoxazole)



For vigorous treatment of G.U. infections before the invaders become entrenched...

Gantanol (sulfamethoxazole) offers a comprehensive spectrum of antibacterial effectiveness against most common gram-negative as well as gram-positive invaders. In addition, it provides

satisfactory concentrations in the blood and urine with ready diffusion into interstitial fluids for antibacterial activity at foci of bacterial invasion.

High antibacterial activity against *E. coli* and other common urinary pathogens... A review of 153 cases of acute G.U. infections reported in the literature shows that

90% responded to Gantanol (sulfamethoxazole), with over one-half of these patients showing excellent relief of symptoms.^{1,2} Even in stubborn chronic G.U. infections, almost 60% of 450 patients improved on Gantanol (sulfamethoxazole), including many who had not responded to other antibacterials.¹⁻⁶

Generally uncomplicated therapy enhances the favorable clinical results... Of the total 686 patients from the studies cited,¹⁻⁶ only three discontinued therapy because of side effects. Most of the side effects reported (approximately 3%) were mild and included nausea and/or vomiting, skin rash, dizziness, headache, gastritis, generalized uneasiness and itching.¹⁻⁶

1. Peters, J. H.: *J. Urol.*, 87:747, 1962. 2. Draper, J. W., et al.: *South. M. J.*, 57:920, 1964. 3. Stewart, B. L.: *J. Urol.*, 87:491, 1962. 4. Hagstrom, R. S.: *Rocky Mountain M. J.*, 59:(2), 37, 1962. 5. Arnold, J. H.: *Clin. Med.*, 71:552, 1964. 6. Nelson, C. G.: *Colorado GP*, 3:(3), 2, 1961.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first three months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-John-

son syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets b.i.d. or t.i.d. depending upon severity of infection. Children—1 tablet/20 lbs initially, followed by ½ tablet/20 lbs b.i.d.

How Supplied: Tablets, 0.5 Gm, bottles of 50.

Roche Laboratories

Division of Hoffmann-La Roche Inc.
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**when there are bacterial invaders
in the bladder, prostate or kidneys**

Gantanol[®]
(sulfamethoxazole)

Everyone says she's a barrel of fun



But what does she think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

**to help establish
a new dietary pattern**

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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One by one the family's downed Because the G.I. bug's around

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin,
and protects intestinal mucosa

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin

Each fluid ounce of creamy white suspension contains:

*Paregoric (equivalent) (1.0 dram) 3.7 ml.
Contains opium ($\frac{1}{4}$ grain) 15 mg. per fluid ounce.

warning: may be habit forming

Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)

Usual Adult Dose: One or two tablespoonfuls three times daily.

Usual Children's Dose: One or two teaspoonfuls three times daily.



WILLIAM H. RORER, INC.
Fort Washington, Pa.

PROVIDENCE MEDICAL ASSOCIATION

(Continued from Page 282)

patients who "fight" their symptoms do get better, develop more exercise tolerance, and occasionally the symptoms of angina may disappear. Thus, this method may become an accepted alternative to the operative approach.

The explanation for the benefits of "exercising" is not clear. Certainly the EKG does not change and thus a change in myocardial scarring is not the answer nor is there increased tolerance to pain in these patients.

Does the cardiac muscle respond to "training" by developing new blood vessels?

Since the American public is not yet ready to accept this form of treatment, groups of patients just as in Alcoholics Anonymous and Weight Watchers might re-enforce "self discipline" and establish confidence in the method. Wives remain the most potent enemies of such a program because they quote such authorities as Reader's Digest, Woman's Home Companion, and other such authoritative gospels. Physiotherapists on the other hand could be effective promoters of such group programs if they can be convinced of the potential benefits of such a program.

Dr. Littmann concluded his presentation with the following statements in answer to questions from the audience.

1. Although angiographic studies do show an increased caliber of coronary arteries secondary to vasodilator the involved atherosclerotic vessels are not dilatable so that whatever increase there is in coronary circulation occurs in that part of the heart muscle which does not need it.

2. If nitroglycerin does have any pharmacologic beneficial effect, it is from the decreased cardiac work resulting from decreasing venous return just as standing still causes improvement by blood pooling.

3. Although epinephrine is one of the most effective coronary artery dilating drugs, its administration to susceptible people leads to anginal symptoms because it increases cardiac work.

4. Alcohol has no tangible effects on coronary artery blood flow but relaxes the patient which is beneficial.

5. Probably more people die in bed due to slowing of their circulation.

6. Although fresh coronary occlusion is found in only 15 to 20 per cent of all acute myocardial infarctions, the concept of an electrical shock induced by the sudden change of potential in the cardiac muscle by the infarction process causing ventricular fibrillation has not substantial scientific proof.

(Concluded on Page 296)

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED
COMBINATION
OF THE MOST WIDELY
USED ANTACIDS—
FOR RAPID
NEUTRALIZATION.
PLUS SIMETHICONE—
TO CONTROL
THE FACTOR WHICH
ANTACIDS ALONE
CANNOT INFLUENCE.

Mylanta[®]

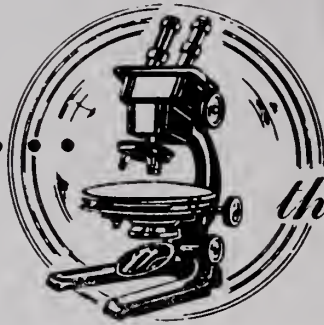
- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

Stuart

THROUGH .

*the Microscope*

HIND-FOOT OPERATION REPORTED BY R.I. PHYSICIANS

A hind-foot operation to help cerebral palsied children walk better with their foot deformities was outlined to the American Academy of Orthopaedic Surgeons at San Francisco in January by a team of Providence investigators consisting of Drs. Carroll M. Silver, Stanley D. Simon, Edward Spindell, Henry M. Litchman and Michael Scala.

Deformities in which the foot turns outward or, less frequently, inward, is commonly seen in CP children. A well accepted operation is stabilization of the bone by fusion when the child is old enough (11 or 12 years of age). But in young children such foot fusion operations are not applicable because they would interfere with growth of the foot.

Dr. Carroll M. Silver and his associates prefer to wedge-graft bone from the heel in a manner that corrects the position of the foot and changes its weight-bearing status without destroying joint function. The operation is simple and hospitalization short, he said.

Twenty-seven operations were performed on 20 CP children and followed from two to five years. All the children, ages 2½ to 13, had extensive bracing, shoe corrections, physiotherapy and even previous surgery that had not been satisfactory.

Twenty of the 27 cases show good results to date, according to Dr. Silver.

RESIDENT PHYSICIANS OFFERED GRANTS AGING STUDIES

Three \$1,800 grants to encourage resident physicians to devote more time to the study of medical problems of the aging have been renewed by the American Geriatrics Society.

The grants — inaugurated by Lederle Laboratories in 1962 — will supplement the salaries the physicians receive. They will cover the period between July 1967 to June 1968.

In announcing the grants, Dr. Edward J. Lorenze, president of the American Geriatrics Society, said that much more research is needed if we are effectively to meet the problems posed by an increasing number of aged in our population. He noted that

by 1970 there will be 20 million Americans 65 or older.

Lederle's Medical Director, Dr. Benjamin W. Carey, said that a great deal of basic research is needed to give us more understanding of what happens in growing tissues, what makes us age, and to what extent we can actually prevent the manifestations of aging.

Application for the grants should be addressed to the Chairman, Fellowship Committee, American Geriatrics Society, 10 Columbus Circle, New York, N.Y. 10019. Deadline for applications is June 1, 1967. Announcement of the awardees will be made at the AGS annual meeting June 16-17 at Atlantic City.

DR. SIMEONE NAMED TO BROWN MEDICAL FACULTY

Brown University and the Miriam Hospital have announced the joint appointment of Dr. Fiorindo A. Simeone of Cleveland, nationally known surgeon and medical educator, as professor of medical science at the University and director of the department of surgery at the Miriam Hospital.

Dr. Simeone has been director of surgery at Cleveland Metropolitan General Hospital and professor of surgery at Western Reserve University Medical School since 1950.

The appointment of Dr. Simeone, a Brown graduate and a member of the university's Board of Trustees, was announced by Dr. Ray L. Heffner, university president, and Paul Levinger, president of the hospital's Board of Trustees. Mr. Levinger, president of the Speidel Division of Textron Inc., also is a Brown trustee.

The appointment is effective July 1.

WOMEN MAKE UP THE 'SAFER SEX,' A SURVEY SHOWS

When it comes to accidents, women are decidedly the safer sex, but not in the home.

The Health Insurance Institute, reporting on National Health Survey data, said that there were an estimated 53.7 million accidents a year in this country — men accounting for 31.6 million of that total, and women 22.1 million.

(Continued on Page 291)



Togetheress....

...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity¹ or side effects^{2,3} and will not mask symptoms of serious organic disorders.

1. Bradley, J. E., *et al.*: J. Pediat. 38:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. 20:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. 65:311 (Feb.) 1953.



WILLIAM H. RORER, INC.
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Emetrol[®]
phosphorated carbohydrate
solution
emesis control



Wherever you go,
forget your telephone
calls. We'll take them
for you, day or night.

MEDICAL BUREAU
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when he just can't sleep

Tuinal

**Sodium Amobarbital and
Sodium Secobarbital**

(One-Half Sodium Amobarbital and One-Half Sodium Secobarbital)



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

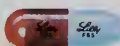
Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Supplied: ¾, 1½, and 3-grain Pulvules®.

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Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

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**Coke has the taste
you never get
tired of.**



THROUGH THE MICROSCOPE

(Continued from Page 286)

In the home, women had slightly more accidents with 12.6 million mishaps as compared to 12.4 million for men.

The reason of course is that women generally spend more time in the home than men do.

At work, men had over 8 million accidents in a year while mishaps involving women were very low in number — 1.4 million.

In accidents involving moving motor vehicles, females had 1.6 million mishaps and men about 2.0 million.

In all other types of accidents, it was 11.3 million for men and 7.2 million for women.

The NHS report was based on household interviews of the civilian population. The data were collected over the 24-month period ending June 1965

An "injured" person was defined in the survey as one who as a result of an accident receives medical attention or whose usual activities are restricted for at least a day.

Meanwhile, in another study, this one conducted by the National Research Council, it was reported that accidents were the leading cause of death among persons between the ages of one and 37, and the fourth leading cause of death for all ages.

"In 1965," the report noted, "52 million accidental injuries killed 107,000, temporarily disabled over 10 million and permanently impaired 400,000 American citizens, at a cost of \$18 billion."

SOCIAL SECURITY INCREASES CITED AS POSSIBLE BAD ECONOMICS

The drive to increase Social Security benefits may be good political strategy, but it is bad economics if the present operation of the Social Security system is continued.

That is the opinion of the research staff of the National Federation of Independent Business which points out that any increases in the taxes on business, either on the rate or the amount of income subject to the tax, will create further inflation of prices.

The members of the Federation, all independent business proprietors, have long voted in favor of every measure introduced to permit Social Security recipients to earn as much as they can without sacrificing any of their benefits.

During the 89th Session of the Congress the independent business proprietors by a majority of 68 per cent supported the latest move in this direction authored by Rep. Theodore Kupferman, N.Y.

While the Federation has never taken a position that the needs of the elderly aged can be ignored, it has in the past pointed out the fallacy of increasing the payroll taxes that an employer must pay,

as this in turn forces up the cost of goods and services.

It is believed that if further taxes are needed to increase benefits, the American people should be told that the additional taxes will be levied on the employee and not the employer, as raising the employer's payroll taxes is a self-defeating strategy which not only raises prices, but increases the cost of living for the Social Security recipient.

In the opinion of the Federation research staff, this raising of payroll costs, which in turn raises the costs of goods and services to meet the higher living costs of the aged, is "the dog chasing its tail" school of economics, and will no more result in Social Security payments catching up with living costs than it is likely that any dog will ever succeed in catching his tail.

Earlier this year, the Federation voiced sharp criticism over the final report of the National Commission on Food Marketing which was supposed to have explained the increased spread between what the farmer receives and the consumer pays.

The final report failed entirely to point out that welfare taxes assessed against the employer are one of the major causes for this widening gap.

Using the example of a loaf of bread, the Federation points out that for three of the principal items used, wheat, shortening, and milk solids, on each there is a labor cost in transporting these materials to the warehouse, to the processor, to the baker, and to the consumer. These transactions, plus the labor costs at each operation, plus the manufacture of the wrapper indicates that in a single loaf of bread there at least 26 different Social Security taxes paid by employers.

Inasmuch as each of these taxes are part of the payroll, they also become part of the cost on which a mark-up is based. Thus, mark-up along the line of this tax on a loaf of bread pyramids so that the ultimate consumer buying the loaf of bread pays the equivalent of several times the actual taxes collected and credited to the accounts of the workers.

Previously the Federation has also called for a full scale study of Social Security by a panel of at least ten actuaries and statisticians from the nation's leading insurance companies to make an objective report and determine if the Social Security system can be improved, and also whether or not it could not be operated more successfully for both the recipients and the taxpayers by private enterprise.

Commenting on the Federation's findings, C. Wilson Harder, president of the organization said, "While it goes without saying that the aged must be cared for, the present operation of the Social Security is a cruel hoax on the trusting, gullible aged,

(Continued on Page 294)



You can't set her free. But you can help her feel less anxious.

You know this woman.

She's anxious, tense, irritable. She's felt this way for months.

Beset by the seemingly insurmountable problems of raising a young family, and confined to the home most of the time, her symptoms reflect a sense of inadequacy and isolation. Your reassurance and guidance may have helped some, but not enough.

SERAX (oxazepam) cannot change her environment, of course. But it can help relieve anxiety, tension, agitation and irritability, thus strengthening her ability to cope with day-to-day problems. Eventually—as she regains confidence and composure—your counsel may be all the support she needs.

Indicated in anxiety, tension, agitation, irritability, and anxiety associated with depression.

May be used in a broad range of patients, generally with considerable dosage flexibility.

Contraindications: History of previous hypersensitivity to oxazepam. Oxazepam is not indicated in psychoses.

Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. One patient exhibiting drug dependency by taking a chronic overdose developed upon cessation questionable withdrawal symptoms. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6 to 12 year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leukopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever, euphoria and dysmetria.

Availability: Capsules of 10, 15 and 30 mg. oxazepam.

To help you relieve anxiety and tension

Serax[®]
(oxazepam)



Wyeth Laboratories
Philadelphia, Pa.

THROUGH THE MICROSCOPE

(Continued from Page 291)

and a monstrous burden placed on the backs of the young generation which may well drive it into bankruptcy."

MEDICINES COST EACH AMERICAN AVERAGE OF \$21

The average American spends \$21 a year on medicines including what the doctor prescribes and what he buys off the druggist's shelf, the Health Insurance Institute said recently.

The Institute, reporting on a study by the U.S. Public Health Service, said that doctor-prescribed medicines make up three-fourths of the average person's annual drug purchases.

The PHS report showed that the cost per person for prescribed medicines increased steadily with age. Expenditures for youngsters under 15 years of age, for example, averaged \$6.40 for prescribed medicines, while the costs for persons over age 65 averaged \$41.40.

For these same age groups, the corresponding expenditures for nonprescribed medicines were \$4.00 and \$8.80. The female population, says the report, outspent its male counterpart three to two for prescribed drugs. The average was \$18.60 per year for females and \$12.00 for males.

PATIENT CARE ONE OF 4 TOPICS OF GENERAL SESSIONS AT 1967 AMA ANNUAL CONVENTION

Patient care, from the standpoint of standard methods as well as research, will be one of four topics presented in general scientific sessions at this year's Annual Convention of the American Medical Association.

The Convention is to be held in Atlantic City June 18-22; the Scientific Program will be at Convention Hall, and nearby hotels, and the House of Delegates will meet at the Chalfonte-Haddon Hall Hotel.

The General Scientific Meetings are open to all physicians attending the Annual Convention.

Other General Scientific Meetings on this year's Annual Convention program will be on the subjects of: backache, healing and sex.

In addition to the General Sessions, each of the 22 Scientific Sections will present scientific programs. Many of the Section programs will, as in past years, be joint meetings of two or more Sections and, in some instances, a specialty society.

MORE SKILLED CLASS OF UNEMPLOYED BEING CREATED?

Is the War on Poverty emphasis on training unskilled workers at taxpayer's expense merely resulting in a more skilled class of unemployed?

This question seems posed by a special analysis made by the National Federation of Independent Business which indicates that despite extensive publicity given to a shortage of skilled labor since the Vietnam war heated up, there is still a substantial supply of trained people.

In the 1964 continuous field survey, the question was asked, "Is there a pool of skilled but unemployed manpower in your community?"

Nationally, out of 52,070 respondents, 35 per cent in 1964 answered in the affirmative.

The 1966 continuous field survey carries the question, "Are trained people available to you in your area if you need additional help in your business?" Of the 65,423 respondents through September 30, 25 per cent answered in the affirmative.

In Rhode Island, the affirmative answer in 1964 was 38 per cent, and in 1966 the "yes" responses are 31 per cent.

The incompatibility between the Federation findings and the presumed facts released by the War on Poverty officials can perhaps be accounted for by the fact that an estimated 85 per cent of the respondents to the Federation surveys are located outside the big metropolitan areas.

There are indications that many skilled people are willing to work at less than their maximum skills rather than move to the big cities in view of the congestion, the higher taxes, and the high crime rate and lack of personal safety. This seems especially true where the family unit involves school age children. While the information on this aspect of the situation is too sketchy to be definitive, there is apparently some substance to this factor, the Federation research staff believes.

Another factor which may have a bearing is the fact that of the total independent business respondents, less than 8 per cent, or 7.7 per cent to be exact, are unionized. Again, there are indications that many skilled people would prefer to work at less than their maximum skills, rather than be forced to belong to a union.

(Continued on Page 296)

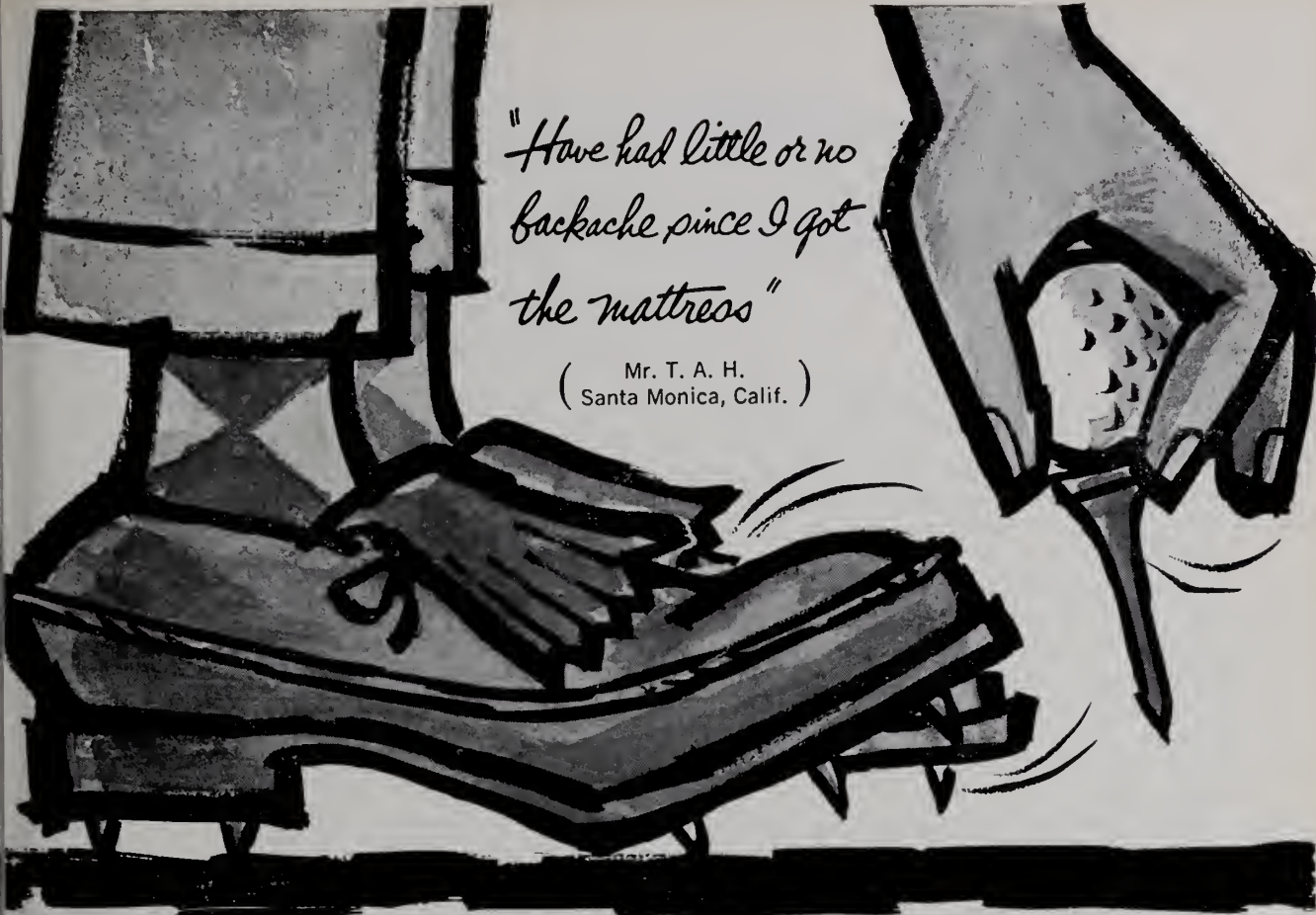
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THROUGH THE MICROSCOPE

(Concluded from Page 294)

'67 SET TO BE RECORD TRAVEL YEAR

Isn't modern travel wonderful. Breakfast in London. Lunch in New York. Your bags in Brazil.

—BOB HOPE

It looks like another record year for travel by United States citizens.

One good indication of this is the rate that "old" passports are renewed and new ones applied for.

Last year, a record was set. According to the U.S. Department of State, 1,547,725 Americans renewed or received new passports. In 1965, the figure was about 200,000 fewer, and in 1964, about 400,000.

Actually, overseas travel for business or pleasure this year could reach well over six million persons. The official 1965 total of sea and air departures from the United States was 5,444,062. The 1966 figure is yet to be tallied.

At home, travel people expect the vast majority of American families to go someplace this year on pleasure trips.

The Health Insurance Institute reminded travelers that most insurance company health expense policies apply anywhere the insured travels. Travelers were urged to make note of the insurer and policy number particularly if they plan to journey within the United States. Travelers taken ill or injured abroad and confined to hospitals should keep all hospital and doctor bills for reimbursement when they return home.

Some persons, said the Institute, may wish to take out additional protection for their trips. These short-term policies are termed "special risk" or travel-accident policies which cover the traveler usually from one to 180 days. They come under the categories of aviation trip insurance, common carrier insurance for travel in any commercial conveyance, conveyance insurance for protection in or out of any conveyance, and 24-hour protection providing coverage for common carrier and conveyance accidents, and for stopover injuries, even at home.

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A typical travel policy provides from \$500 to \$5,000 in medical benefits, and a principal sum of from \$5,000 to \$50,000 for death or dismemberment.

A relatively new coverage in travel-accident policies can cover luggage and personal effects against loss or damage for an additional premium. Certain items such as clothes, wristwatch, jewelry, camera, sporting equipment can be insured for up to \$2,000.

A traveler who takes out a 30-day travel-accident policy which would provide him (1) \$1,500 for medical expenses (2) \$15,000 in death or dismemberment benefits (3) \$500 for luggage and personal effects loss or damage, can expect to pay a premium under \$20, the Institute said.

INDUSTRIAL ACCIDENTS INCREASING

Deaths from industrial accidents numbered 14,600 in 1966, up from 14,100 fatalities in 1965 and 13,500 in 1964, reports the National Safety Council. Labor Department figures show 13.2 disabling injuries per million man hours worked during first six months of 1966 compared to a rate of 12.9 during last six months of 1965.

Insurance companies, self-insurers and State Workmen's Compensation Funds paid \$2 billion to injured workers in 1966 compared to \$1.8 billion in 1965. The cost to U. S. plants in lost time, equipment damage and premiums for WC coverage amounted to \$6 billion in 1966 up from \$5.6 billion in 1965.

Boomtime conditions, requiring the employment of inexperienced help and workers tired from overtime and moonlighting, are major causes for the increasing accident rate. The accident rate, high during the Korean action, had been declining until 1960.

PROVIDENCE MEDICAL ASSOCIATION

(Concluded from Page 284)

7. Coronary angiography is helpful to collect data, to pinpoint the location of involved areas, and to demonstrate a normal coronary system which usually rules out angina pectoris.

Dr. Littmann stated that the mortality associated with angiography is in the vicinity of that associated with appendectomy.

Adjournment

The meeting adjourned at 9:50 p.m.

Attendance 56

Collation was served.

Respectfully submitted,

BERTRAM H. BUXTON, J.R., M.D.

Secretary

DERMAQUIZ ANSWER

Psoriasis

(See Page 231)

SCANNING THE MEDICAL LITERATURE

A STATEWIDE MASS MEASLES IMMUNIZATION PROGRAM. Earl B. Byrne, Beryl J. Rosenstein, Alexander A. Jaworski and Rudolf A. Jaworski. *J.A.M.A.* 199:619, (Feb. 27) 1967.

Increased demand for medical services and school absenteeism related to vaccine reactions following a one-day measles immunization program in Rhode Island were studied. Measles virus vaccine, live attenuated (Schwarz) was used. Nearly 60 per cent of susceptible children (30,647) were immunized. Increased demand for medical services averaged less than one telephone call per day per physician during the week when most reactions occurred. For two weeks preceding immunization, however, many physicians experienced a sharp increase in calls from parents requesting immunization histories of their children. School absenteeism among those vaccinated was higher by 3.5 per cent throughout the state, except in certain communities where epidemic influenza B morbidity was reaching peak levels. Here, absenteeism patterns were reversed. Interferon induced in those vaccinated by the measles virus vaccine is suggested as an explanation for the apparent protective effect against influenza B.

VIRAL HEPATITIS IN NARCOTICS USERS.

An outbreak in Rhode Island. Beryl J. Rosenstein. *J.A.M.A.* 199:698, (March 6) 1967.

During the fall of 1964 and winter of 1965, an outbreak of viral hepatitis occurred in narcotics users in Rhode Island. A history of intravenous drug use was elicited from 27 persons, one of whom had three distinct episodes of hepatitis. Twenty-four of the 27 patients were males aged 17 to 30, and they accounted for 30 per cent of all reported cases of hepatitis in this age group. Although the majority of the patients were hospitalized, they had a mild course and there were no deaths. Eleven of the 27 patients, or 41 per cent, were not initially recognized as drug users by their attending physicians. Epidemiologic data suggested that the cause of the outbreak was the virus of serum hepatitis, and that it was transmitted by the use of contaminated injection equipment.

BOOK REVIEW

TRAUMA TO THE LIVER by Gordon F. Madding, M.D., and Paul A. Kennedy, M.D. Volume III in the Series *Major Problems in Clinical Surgery*. J. Englebert Dunphy, M.D., Consulting Editor. W. B. Saunders Company, Philadelphia, 1965. \$6.00

The present decade has seen remarkable advances in surgical techniques particularly in specialized organs such as the liver. A more aggressive approach has been taken in the treatment of primary and secondary tumors of the liver; liver transplants have been technically successful and more attention has been directed recently to liver trauma which continues to be a major problem in the care of abdominal injuries.

Madding and Kennedy became interested in liver trauma during the Second World War when during a 16 month period their Second Auxiliary Surgical Group cared for 829 wounds of the liver occurring in 3,154 patients with abdominal and thoracic wounds. Out of necessity, modified by experience, they evolved certain general principles of treatment.

The book which these authors have compiled following their war experience fills a very definite gap in most general surgeons' knowledge. Most civilian surgeons are only occasionally called upon to care for this type of injury.

The resulting 134 page monograph is exceedingly well put together, reviewing first the surgical anatomy followed by an historical resume, then pathology, and diagnosis. The operative procedures are well described and well illustrated. Methods of resection and suturing are reviewed in detail. The role of absorbable hemostatics and new tissue adhesives is described together with their multiple complications.

This book should be read by all abdominal surgeons and should be available for review as a guide to the treatment of liver trauma and for the detailed anatomical knowledge needed successfully to resect large portions of the liver.

CHARLES B. ROUND, M.D.

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EDALOGY

PYLORIC STENOSIS IN NEGROES

The incidence of infantile hypertrophic pyloric stenosis is relatively low in the American Negro as compared with white infants. A review of records of G. W. Hubbard Hospital over a ten-year period disclosed 12 cases among a total of 13,075 live births, representing an incidence of 0.92 per 1,000 live births. Pyloric stenosis, as reported for Negroes in Pittsburgh, was found only one-half as frequently as studies indicate for Negroes in Nashville. The evidence indicates that this condition varies in frequency from one ethnic group and population to another.

... *Hara, S.; Crump, E. P., and Parker, W. G.:
J. Nat. Med. Assn. 59:250 (July) 1966*

FAT FACTS

- Americans consume as much sugar in two weeks as their great-grandfathers did in a year.
- Americans' fat consumption is highest in the world — and double that of Russia.
- Men weigh up to five pounds more today on the average than they did 40 years ago.
- Women weigh from two to six pounds less.
- Obesity probably runs in the family. One study reported by the U.S. Public Health Service showed that 73 per cent of 1,000 obese people surveyed had at least one obese parent.

—*Health Insurance Institute*

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Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warnings: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two tablets daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until exact maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, hallucinations); changes in EEG patterns. Abrupt cessation after prolonged over-dosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlor-diazepoxide HCl.

Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

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You can help Jane to help you save time whenever you have a question concerning Physician Service claims. Always ask the switchboard operator for the appropriate department. For example, if your inquiry concerns Major Medical ... ask for Major Medical; for Medicare information ... ask for Medicare; and so on. Thank you!



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MAY, 1967

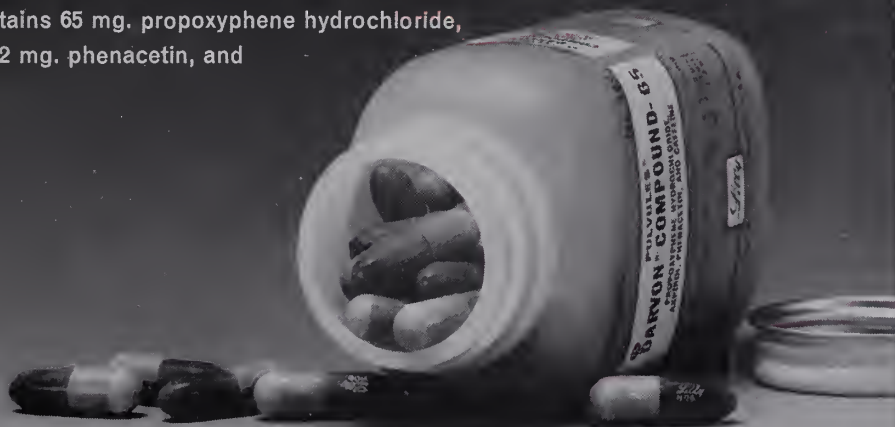
Medical Journal

Vol. L, No. 5

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has an atropine-like action which should be considered when prescribing diphenhydramine hydrochloride. **ADVERSE REACTIONS:** Side effects are generally mild and may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, blurring of vision, vertigo, headache, muscular aching, thickening of bronchial secretions, restlessness, and insomnia have been reported. Allergic reactions may occur.

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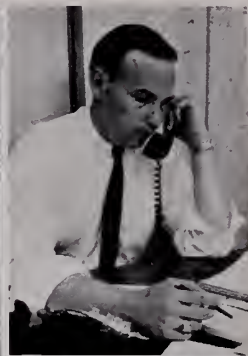
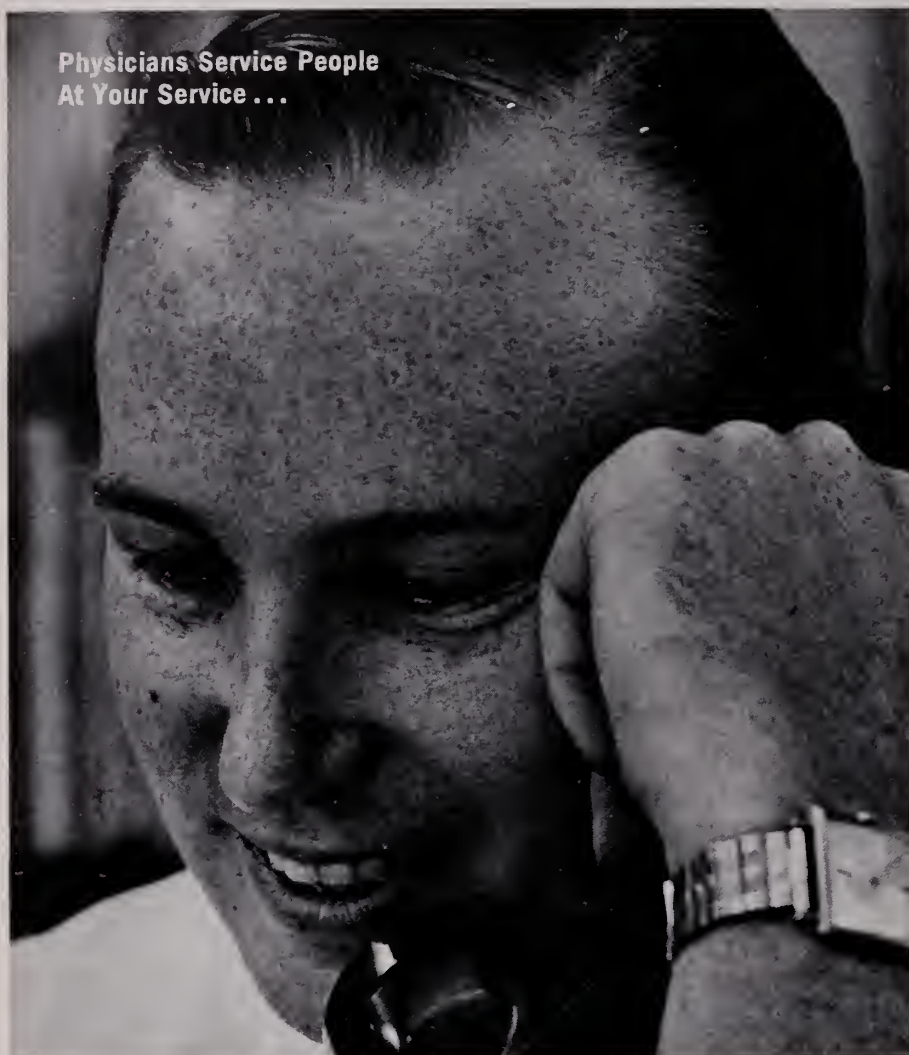
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The RHODE ISLAND MEDICAL JOURNAL

Vol. L, No. 5

May, 1967

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MEETINGS AHEAD

- JUNE 2-3 AMERICAN POLITICAL ACTION COMMITTEE
Washington, D. C.
- Wed., JUNE 7 FIRST ANNUAL RHODE ISLAND INTERN-RESIDENT DAY
Memorial Hospital, Pawtucket — 1-3:30 p.m.
- JUNE 14-16 NEW ENGLAND PUBLIC HEALTH ASSOCIATION
at Boston College, Chestnut Hill, Mass.
- JUNE 18-23 AMERICAL MEDICAL ASSOCIATION — ANNUAL MEETING
at Atlantic City, N. J.
- Thurs., AUG. 17 and
Fri., AUG 18. SIXTH POSTGRADUATE CONFERENCE ON THE MEDICAL
ASPECTS OF SPORTS
at the University of Rhode Island, Kingston, R. I.
- Fri., SEPT. 8 and
Sat., SEPT. 9 REGIONAL MEETING — AMERICAN COLLEGE OF PHYSICIANS
at Sheraton-Biltmore, Providence
- REGIONAL PUBLIC RELATIONS CONFERENCE, NEW ENGLAND
BLUE SHIELD PLANS
at Bretton Woods, N. H.
- Wed., SEPT. 27 MEETING OF HOUSE OF DELEGATES OF R. I. MEDICAL SOCIETY
at the Medical Library, Providence — 8 p.m.

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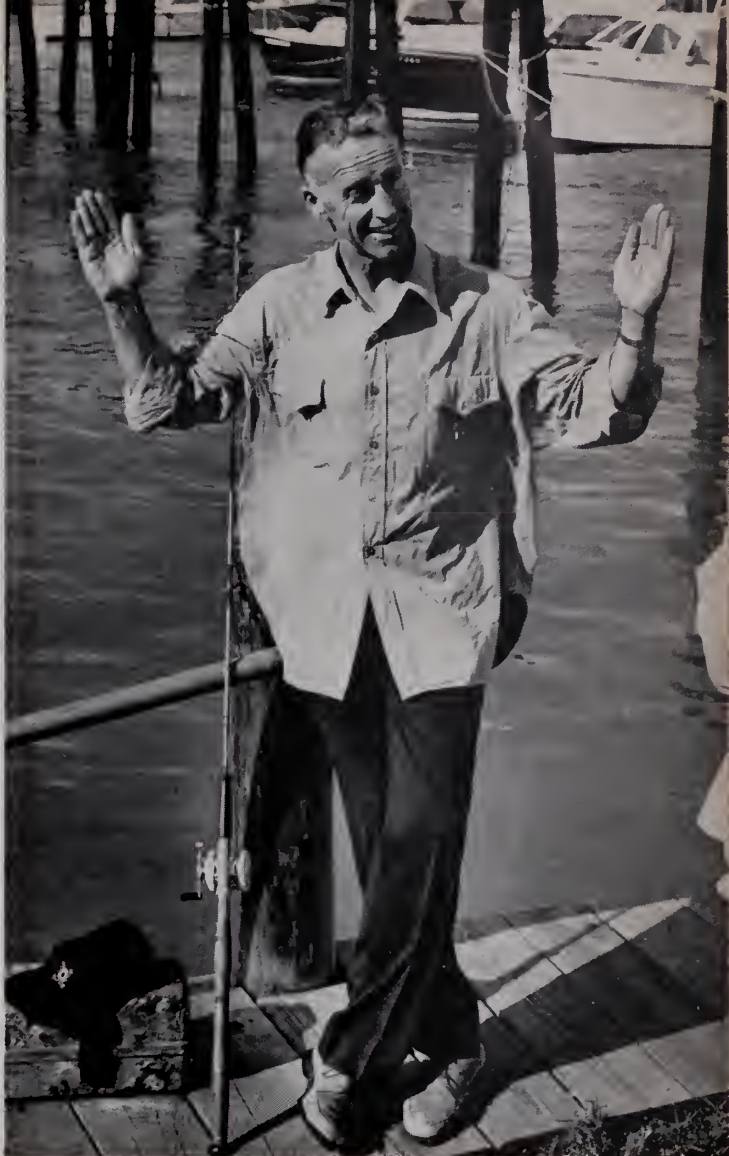
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References: 1. Batterman, R. C., and Grossman, A. J.: *Fed. Proc.* 14:316, 1955. 2. Goodman, L. S., and Gilman, A., ed.: *The Pharmacological Basis of Therapeutics*, ed. 3, New York, The Macmillan Company, 1965, p. 331. 3. Roth, J. L. A., et al.: *Gastroenterology* 44:146, 1963. 4. Conney, A. H., and Burns, J. J.: *J. Pharmacol. Exp. Ther.* 123:340, 1960. 5. Settler, E.: *Clin. Med.* 6:1373, 1959. 6. Berman, H. H., et al.: *Dis. Nerv. Syst.* 25:430, 1964. 7. Darienzo, C.: *Ibid.*, 27:189, 1966.

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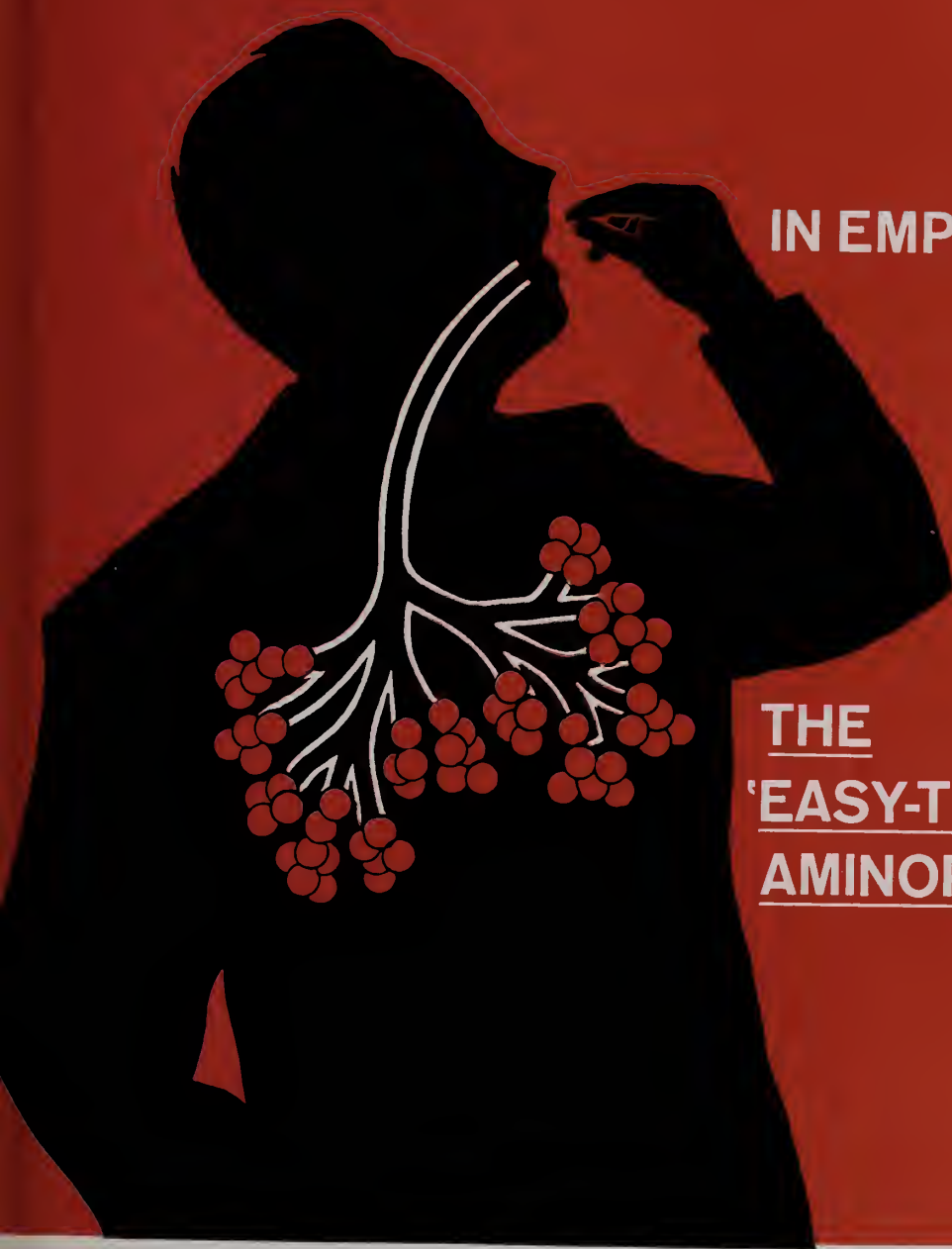
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of U.S. population.

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MEMORIAL HOSPITAL, PAWTUCKET
WEDNESDAY, JUNE 7
1 P.M. — 3:30 P.M.**

SURGICAL MANAGEMENT OF CARCINOMA OF TONGUE

Joseph A. Malejka, M.D., Sr. Surgical Resident,
The Memorial Hospital

THE USE OF INTRAVENOUS VALIUM IN THE PHOTO METRAZOL ENCEPHALOGRAPHIC TECHNIQUE

E. Shammas, M.D., Intern, Miriam Hospital
OSTEOID OSTEOMA

Joseph A. Izzi, M.D., Rhode Island Hospital
APLASTIC ANEMIA, CHROMOSOMAL ABNORMALITIES, AND ERYTHROCYTE PYRUVATE KINASE DEFICIENCY

Edwin G. Taft, M.D., Intern
Rhode Island Hospital

ATRIOVENTRICULAR NODAL PARASYSTOLE ASSOCIATED WITH COMPLETE A-V HEART BLOCK
Sharad Y. Deshpande, M.D., and Heinz H. Magendantz, M.D., Medical Resident,
The Memorial Hospital

BLOOD PRESSURE MONITORING IN PATIENTS IN SHOCK — COMPARISON OF ROUTINE AND DIRECT MEASUREMENT WITH THERAPEUTIC IMPLICATIONS

Joseph A. DeBellis, M.D., Resident,
Rhode Island Hospital

ONE SENTENCE ESSAY

Marital Problems Diagnosed by Using Electric Train Game

The way in which two people who have an ongoing relationship behave in the game-test situation often clearly reflects their interaction in many other decision-making situations that take place in their lives.

... ROBERT A. RAVICH, M.D., *psychiatrist*
quoted in Med. Trib. issue of April 17, 1963

**IN THE EDITOR'S MAILBOX
BROWN UNIVERSITY**

THE PRESIDENT

16 March, 1967

To the Editor:

The February issue of the *Rhode Island Medical Journal* has just come to my attention. I want to thank you for giving space to the speeches of Doctors Coggeshall and Simeone, and for your own very generous comments. As you know, I have great enthusiasm for the potentialities of medical education in Rhode Island, and I am pleased to see members of the medical profession sharing this enthusiasm.

Sincerely yours,
RAY L. HEFFNER

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oxyphenbutazone

Tandearil in Painful Shoulder

Therapeutic Effects: Stiffness and pain may diminish within 2 days, and full mobility may be restored within a week. These effects are obtained with oxyphenbutazone alone or combined with physiotherapy or local hormonal injections. The drug is usually well tolerated and does not affect pituitary-adrenal function or immune response.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: 600 mg. daily in divided doses for 2 to 3 days; 300 mg. daily thereafter. Usual duration of therapy: 2 to 7 days.

Availability: Tablets of 100 mg. 6562-VI(B)R

For complete details, please refer to full prescribing information.



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Geigy

Tandearil[®]
oxyphenbutazone

helps painful shoulders
move again



Please see ad-
joining page for
brief prescribing
summary.

TA-5094PC

Sperling, I. L.
Applied Therap. 6:117,
1964

Rosenbaum, E. E., and
Schwarz, G. R. North-
west Med. 61:927, 1962.

3 out of 4 painful shoulder patients
responded well

84.2% of 127 patients

81% of 48 patients

Why these 7 patients with **moderate to severe anxiety** may respond better to Mellaril

1. The agitated patient.

Anxiety—particularly that beyond the range of minor tranquilizers—frequently is expressed as gross motor restlessness, fidgetiness and purposeless movements, and may erupt into aggressive behavior. Mellaril is almost a specific for those patients whose anxiety follows such a pattern.





The psychosomatic patient.
A family physician is rarely given the diagnostic luxury of a classic, textbook "anxiety state." Most often must probe for anxiety masked by functional disorder—or which exacts a somatic problem. Double-blind evaluations have demonstrated Mellaril can be a significant aid in the treatment of such patients.



The patient under emotional stress.

Mellaril helps the patient deal with stresses of everyday life. Nonhabitually it can be given for extended periods of time. It does not "separate" the patient from practical problems and pressures, does not induce euphoria or a fuzziness which can compromise the ability to cope with reality. Rather, it helps the patient move more competently in his daily world by eliminating useless tension, by allowing him to conserve emotional resources and energies, and to direct them against the problems really worth worrying about.



4. The menopausal patient.

The woman who sees change of life as the end of useful life requires support from both family and family physician. Whether the psychological impact of menopause is directly related to hormonal changes, or merely coincidental, is debatable, but estrogenic therapy is frequently inadequate. Mellaril is a useful aid for these patients and, alone, or in combination with reduced estrogen dosage, will help ease the menopausal misery.



5. The previously hospitalized psychiatric patient.

Such a patient may still require the type of medication he has been accustomed to, but because he is no longer in a controlled setting the acceptable level of adverse reactions must be lower. In such circumstances Mellaril is perhaps the drug of choice.



6. The agitated geriatric.

Tranquilizer therapy in the elderly patient always involves special (or at least accentuated) problems: the possibility of drug-induced ataxia, hypotension or depression, for example, assumes an additional significance. These reactions have rarely been observed in geriatric patients treated with Mellaril.



7. The constantly returning patient.

The anxiety patient who has not responded to a minor tranquilizer is not very likely to benefit from your minor tranquilizer of second choice. A major tranquilizer, such as Mellaril, may be indicated in such patients.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

in moderate to severe anxiety, 25 mg. t.i.d.

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(thioridazine)





at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food¹⁻³

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.^{1,2} Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.^{1,3}

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of

staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Ilosone® 700121
Erythromycin Estolate



(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone. **Contraindications:** Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to

be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months; patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of these patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months, and in a group receiving prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevation of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (one to five day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with therapy of erythromycin, there have been occasional reports of urticarial skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally. Ilosone Pulvules® Ilosone Chewable Tablets Ilosone Drops Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours for children twenty-five to fifty pounds, 125 mg. every six hours (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days is recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base), in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 1-cc. size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc. size packages.

References: 1. Griffith, R. S., and Black, H. R.: *Am. J. M. Sc.*, 247:69, 1964. 2. Griffith, R. S., and Black, H. R.: *Antibiotics & Chemother.*, 12:398, 1962. 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: *Am. J. M. Sc.*, 239:198, 1965.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

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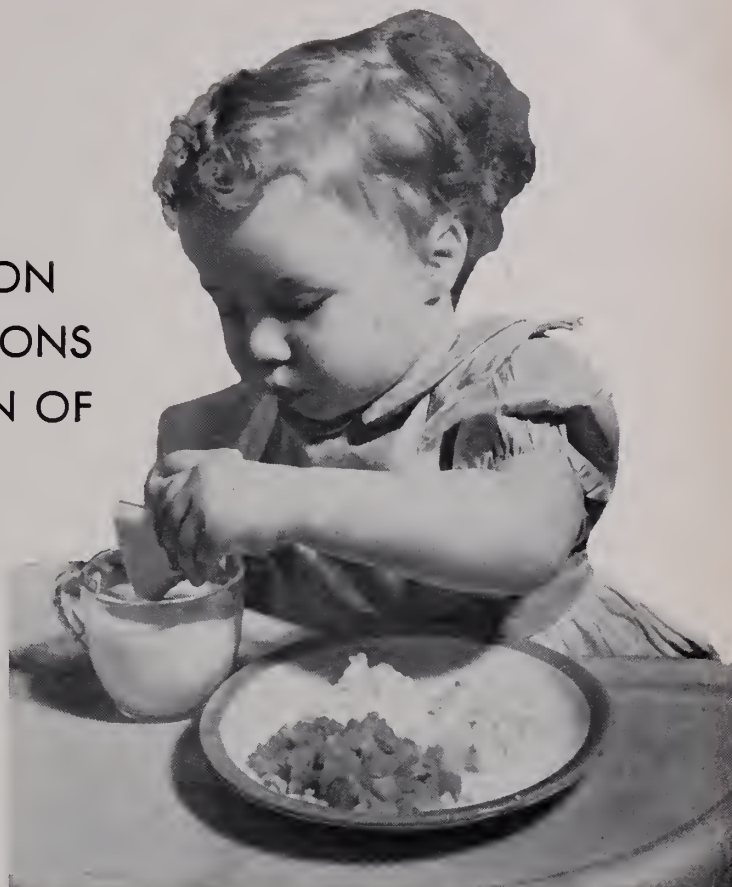
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BOOK REVIEWS

ATLAS OF EXTERNAL DISEASES OF THE EYE. VOLUME 1 — CONGENITAL ANOMALIES AND SYSTEMIC DISEASES by David D. Donaldson, M.D. The C. V. Mosby Company, Saint Louis, 1966. \$35.00

This is the work of a skillful investigators in the field of ophthalmology-dermatology-systemic diseases and photography. The book is divided into two parts. The first relates to congenital anomalies, anomalies associated with cranial dystrophies, anomalies of the orbit, of the eyelids and the lacrimal apparatus, of the conjunctiva, of the cornea, of the iris and ciliary body, and of the lens. In hemangioma of the orbit, p. 33, it could have been added that infra-red photography helps in the differential diagnosis with a mucous cyst, a lymphangioma, a hematoma.

The second part contains the eye manifestations of systemic diseases with the ocular findings, the most important, and sometimes the only objective sign of a disease. Discussed are endocrine, metabolic, collagen, vascular, infectious, and dermatologic diseases, toxicity and trauma, and neoplastic disorders.

In the treatment of pediculosis ciliaris, manual removal of nits and pediculi with a tweezer is sometimes preferable to the use of pediculi-killing chemicals.

At the end of the book there are 105 stereoscopic views in color on 15 View-Master® reels and a View-Master® compact viewer. These are obtained by taking the pictures simultaneously with two cameras. Another feature is the author's personal technique of three dimensional photography of the eyes.

The color stereoscopic views are certainly a great help. However, in such a publication in which expense was not spared, it would seem that a few color illustrations among the 83 black and white ones would have added considerably to the value of the book. For instance, while a picture of herpes zoster (fig. 56) is satisfactory in black and white, that of lupus erythematosus disseminatus (fig. 63) and of osteogenesis imperfecta (fig. 6) are not. However, the 105 stereoscopic views in color on 15 View-Master® reels and a compact View-Master® viewer makes this volume a most valuable publication.

L. C. HAPP, M.D.

F. RONCHESE, M.D.

ENRICO BOTTINI AND JOSEPH LISTER IN THE METHOD OF ANTISEPSIS. Pioneers of Antiseptic Era by G. P. Arcieri, M.D. Alcmæon Editions, New York, 1967. \$3.00

E. B. Krumbhaar, President of the American Association of the History of Medicine, in his translation of Castiglioni's History of Medicine (1947), recalls that before Lister, Bottini, professor of surgery at the University of Pavia, Italy routinely applied carbolic acid as an antiseptic in the operating room and published a paper on the topic in the *Annali* of the University in 1866. Lister's first paper on antiseptics appeared in 1867.

Arcieri believes that "Bottini-Lister antiseptics" would be a more appropriate name for the now historic procedure and that Bottini deserves at least a word of mention in the present well deserved celebration of Lister.

F. RONCHESE, M.D.

OPERABLE HEART DISEASE. Pathophysiology, Diagnosis and Treatment by Howard D. Sirak, M.D. The C. V. Mosby Company, Saint Louis, 1966. \$12.50

This is not a surgical text giving surgical technique in operable heart disease. However, it is an excellent introduction to the understanding of congenital cardiac lesions and acquired valvular lesions that are amenable to surgical correction.

Surgery of heart disease has become highly specialized. One must have a basic understanding of circulatory and respiratory physiological changes in the pathologic entities of the heart. The surgical intern and resident, particularly the resident in thoracic surgery, are called upon daily to interpret EKG changes and cardiac catheterization findings. He must have a sound knowledge of respiratory and circulatory dynamics in the care of the post-operative cardiac patient. This book gives him this knowledge. The earlier chapter on definition of terms gives the student a basic vocabulary in congenital and acquired heart disease abnormalities.

The thoracic surgical resident and the cardiologist may feel that this is too elementary a text because of the availability of more comprehensive texts in surgical heart disease. However, I would recommend this book highly for the doctor who trained at a time when cardiac surgery was not done; and for the intern and pediatrician who would like an understanding of the hemodynamic

(Continued on Page 313)

A large, dark, grainy microscopic image showing numerous spermatozoa with long, wavy tails. In the upper left corner, there is a smaller, rectangular inset showing a different view of spermatozoa, which appear more clustered and less motile.

New view of an oral contraceptive at work

Although suppression of ovulation remains the primary mode of action of oral contraceptives, newer knowledge indicates that products like Norinyl-1 — which provide the combined action of both low-dosage progestogen and estrogen for the full treatment cycle — offer multiple contraceptive action that helps explain their unexcelled record of effectiveness. This report explores the secondary protective mechanisms against unwanted pregnancy offered by combined hormonal administration and the importance of the progestational agent in making such multiple contraceptive action possible.

Accumulating evidence has indicated that sparse, highly viscous cervical mucus has an adverse effect on the motility and survival of spermatozoa.

The estrogen-opposing progestational ingredient of Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.) reverses the usual mid-cycle picture of a thin, watery cervical mucus. The result — a built-in barrier that inhibits sperm from reaching the ovum should one be released. The inset in the adjoining photograph shows immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

How the estrogen-opposing action of Norinyl-1 creates a hostile cervical mucus

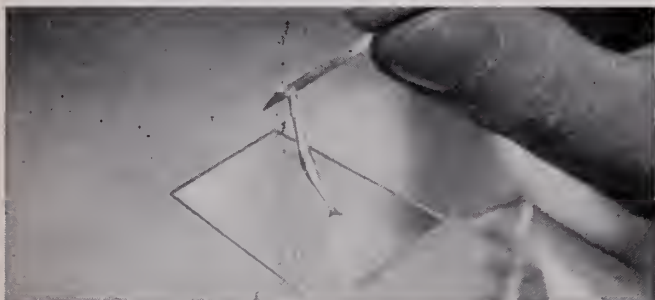
Normally estrogen activity during the fertile midcycle stimulates the production of cervical mucus. The mucus at this time is profuse and watery — allowing maximum sperm motility and promoting penetration.

But what happens when Norinyl-1 is administered? Its potent progestogen, norethindrone, opposes estrogen stimulation of cervical mucus. Consequently, the amount of mucus decreases and its viscosity increases. This results in a sparse but thick mucus barrier that diminishes the vitality of the sperm and impairs its powers of penetration.

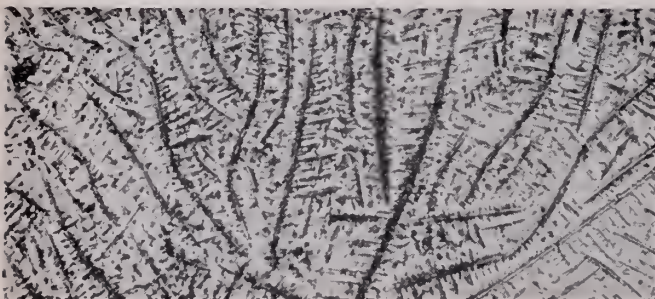
How hostile cervical mucus supports contraceptive action

The importance of these observations to the effectiveness of Norinyl-1 has been noted in a report on 89 patients taking this medication.* In all instances, cervical mucus obtained from cycle day 5 to cycle day 29 appeared scant and thick and exhibited little or no Spinnbarkeit. In the opinion of this investigator, the effect on cervical mucus may be sufficient to prevent conception. *Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

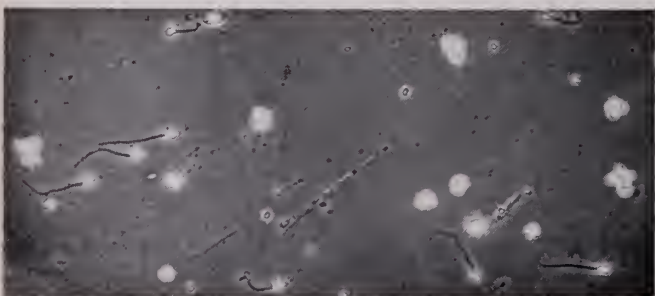
**Normal cervical mucus at midcycle
in untreated patient
permits sperm motility...
promotes sperm penetration.**



Cervical mucus is thin and watery with a stretchability (Spinnbarkeit) of 15 to 20 cm.



Thin, watery mucus crystallizes into this well-defined, fernlike pattern within a minute.

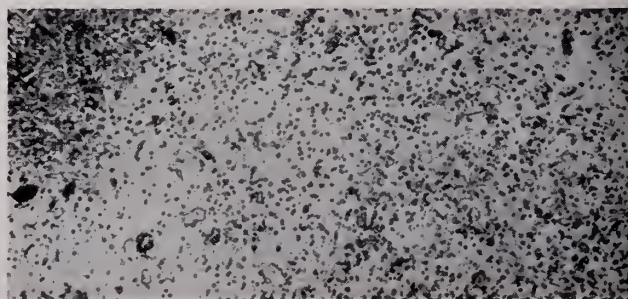


Spermatozoa appear healthy, are active and freemoving.

**Hostile cervical mucus at midcycle
produced by Norinyl-1
impairs sperm vitality...
inhibits penetration.**



Cervical mucus is scanty, thick and viscous. Spinnbarkeit is 1 cm. or less.



In thick, hostile cervical mucus the fern pattern is poorly defined or absent.

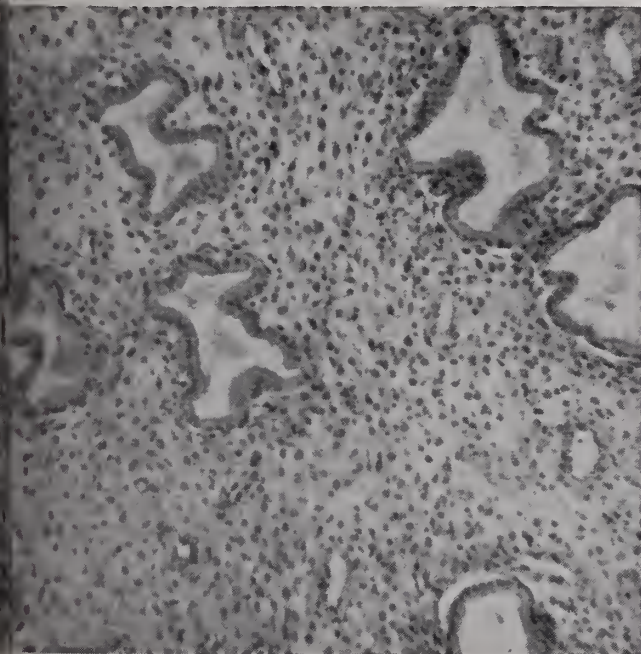


Immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

An endometrium unreceptive to nidation— another supporting contraceptive action of Norinyl-1

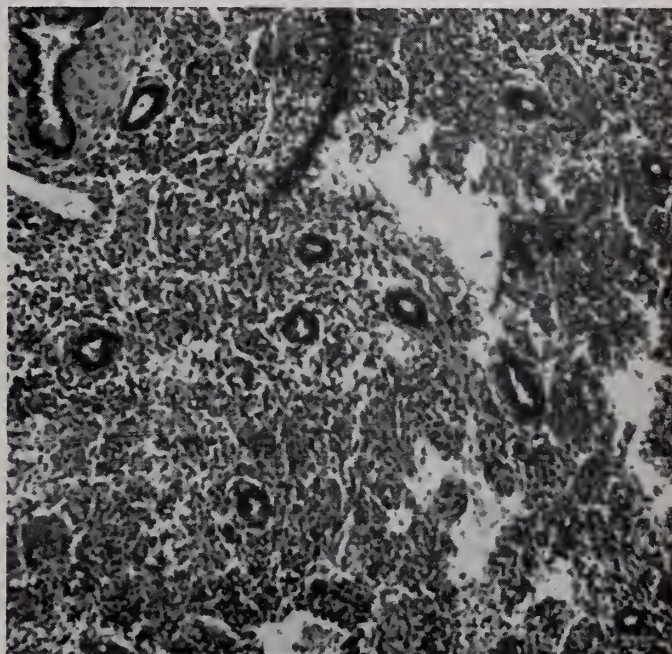
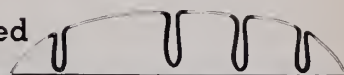
Let us suppose that an ovum is released—as occurs in an occasional, rare case—and somehow a sperm succeeds in penetrating the cervical mucus barrier? Should this come about, the additional action of Norinyl-1 may protect the patient from unwanted pregnancy—progestogen intake makes endometrial tissue unreceptive to implantation.

Endometrium of
untreated patient



Normally the endometrium progresses through a proliferative phase stimulated by estrogen and a secretory phase stimulated by progesterone. During the secretory phase the endometrium is receptive to the fertilized ovum.

Unreceptive
endometrium produced
by Norinyl-1



When Norinyl-1 is administered its progestogen component—norethindrone—accelerates the secretory phase, suppressing glandular development. From day 11 on, secretory action is no longer present. The result is that during the latter half of the cycle the endometrium becomes unreceptive to egg implantation.

new
Norinyl-1
(norethindrone 1mg \bar{c} mestranol 0.05mg.) **tablets**

for multiple contraceptive action

effective fertility control
on half the previous dosage
maintains ratio
of the established
norethindrone/mestranol
combination

lower cost

new
Norinyl-1
(norethindrone 1mg. \bar{c} mestranol 0.05mg.) **tablets**

Reduction of oral contraceptive dosage to lowest effective levels has become a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now available in a new strength in which both norethindrone and mestranol are reduced 50 percent. Studies show that Norinyl-1 achieves fertility control with only 1.5 mg. of combined progestogen and estrogen per tablet.

Norethindrone was first reported for use as a progestational agent in human beings in 1955. Norethindrone 2 mg. with mestranol 0.1 mg., as an oral contraceptive, is currently in use by over 2,000,000 women. Clinical experience now establishes that Norinyl-1 also amply meets the criteria of reliability and safety.*

*Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

PRESCRIBING INFORMATION

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of Norinyl-1 in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with Norinyl-1. Therefore, if such tests are abnormal in a patient taking Norinyl-1, it is recommended that they be repeated after the drug has been withdrawn for 2 months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibroids may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac, or renal dysfunction, require careful observation. 5. Although a cause and effect relationship has not been established, Norinyl-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are

indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged Norinyl-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Norinyl-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. A cause and effect relationship has not been demonstrated. 11. Because of the effects of estrogens on epiphyseal closure, Norinyl-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask the onset of the climacteric. 13. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma, breast changes (tenderness, enlargement and secretion), loss of scalp hair, change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, erythema multiforme, erythema nodosum, hemorrhagic eruption, migraine, rash (allergic), itching, rise in blood pressure in susceptible individuals, mental depression.

The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has not been established: thrombophlebitis, pulmonary embolism, neuroocular lesions.

The following laboratory results may be

altered by the use of oral contraceptives: increased bromsulphalein retention and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and total extractable protein-bound iodine and decrease in T^3 values), metapyrone test, pregnandiol determination.

Other side effects reported to have occurred in association with use of this drug are: dizziness, hirsutism, pains in legs, back, chest and abdomen, dysuria, drowsiness, vaginal discharge, libido increased and decreased, apoplexions, hypermenorrhea, hypomenorrhea, increased appetite, G.U. infections, varicose veins, abdominal fullness, acne, headache, nervousness, allergies, blurred vision, pain in eyes, and itching in eyes. For complete clinical data, see package insert.

Dosage and Administration: 1. One tablet of Norinyl-1 is administered orally for 20 days beginning on day 5 of the menstrual cycle (Count day 1 of the cycle as the first day of menstrual bleeding.) Repeat this dosage schedule for each cycle. 2. If no menstrual period occurs after a cycle of treatment (20 tablets in which patient adhered to the schedule, the patient must be instructed to resume taking the Norinyl-1 tablets 7 days after the previous 20-day course was completed. For example, if the last pill of a previous cycle had been taken on a Sunday, then a new cycle of treatment should begin on the following Sunday. 3. In the postpartum woman, it is recommended that the first cycle of treatment should begin on day 5 of the first menstrual cycle. However, Norinyl-1 should not be administered during lactation.

Availability: Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.)—Dispensers of 2 (60 and bottles of 250 tablets.

norethindrone — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

BOOK REVIEWS

(Continued from Page 308)

changes involved in surgically correctable congenital and acquired heart disease.

ROBERT W. RIEMER, M.D.

MANAGEMENT OF JUVENILE DIABETES MELLITUS by Howard S. Traisman, M. D. and Alvah L. Newcomb, M.D. The C. V. Mosby Company, St. Louis, 1965. \$12.75

This book is a concise and pertinent monograph dealing with all phases of juvenile onset type of diabetes mellitus. The relatively small percentage of diabetics with onset prior to fifteen years of age resulted in a dearth of general information on the nature of this condition and the finer points of its medical and social management. The authors discuss in a general fashion all of the multiple aspects of this disease including previously neglected areas such as prospects of employment and availability of insurance. Detailed information for students, graduate nurses, and parents of the diabetic child is covered in four appendices in the last third of the book. Instruction is provided on routine nursing care, collection of specimens for diabetic urine tests, fluid and electrolyte therapy for diabetic infants and children, and nurses' instruction to parents of the diabetic child. The bibliography provides an inspiring source of references for the reader interested in expanding his information regarding the etiology, pathology, and metabolic interrelationships of carbohydrates, fats, and protein.

A doctor, most particularly a family physician or pediatrician, involved in the treatment of juvenile diabetes mellitus will find this book an irreplaceable addition to his medical library.

BETTY BURKHARDT MATHIEU, M.D.

DOCTORS' OFFICE

183 Waterman Street

3 Rooms, 2nd Floor

Air Conditioned

Phone: 421-5680

PERIPATETICS

JEANNETTE E. VIDAL recently addressed the Newport Hospital Staff on the "Home Care" program.

* * *

Of five new members of the Providence Medical Society, two specialize in Internal Medicine, HERBERT P. CONSTANTINE and HERBERT RAKATANSKY; AMAN U. KAHN in Child Psychiatry; ROBERT J. TOULOUKIAN in Pediatric Surgery; and JOSEPH A. IZZI in Orthopedics and Fractures.

* * *

JOHN PATRICK WOOD of Westerly was elected Fellow of the American College of Obstetrics and Gynecology at a recent meeting of the College

* * *

The 1967 officers of the Rhode Island component of the American Society of Internal Medicine inducted at the Society's First Annual Banquet at the Wannamoisett Country Club are: CONSTANTINE S. GEORAS, M.D., President; MELVIN D. HOFFMAN, M.D., President-Elect; MAX BLOOM, M.D., Vice President; Secretary-Treasurer, KENNETH B. NANIAN, M.D. Members of the Council are: JOHN F. W. GILMAN, M.D., RAYMOND E. MOFFITT, M.D., and EDWARD A. CASEY, M.D.

* * *

At the recent 51st annual meeting in Chicago of the Federation of American Societies for Experimental Biology a paper titled "Carbon Dioxide Elimination Across the Skin" was presented by MYRON STEIN, HERBERT CONSTANTINE, and co-workers.

* * *

HECTOR JASO has been elected president of the Rhode Island District Branch of the American Psychiatric Association. Other officers are VSEVOLD SADONIKOFF, vice president; WILLIAM V. VAN DUYNE, secretary, and PATRICIA WOLD, treasurer.

CORRECTION

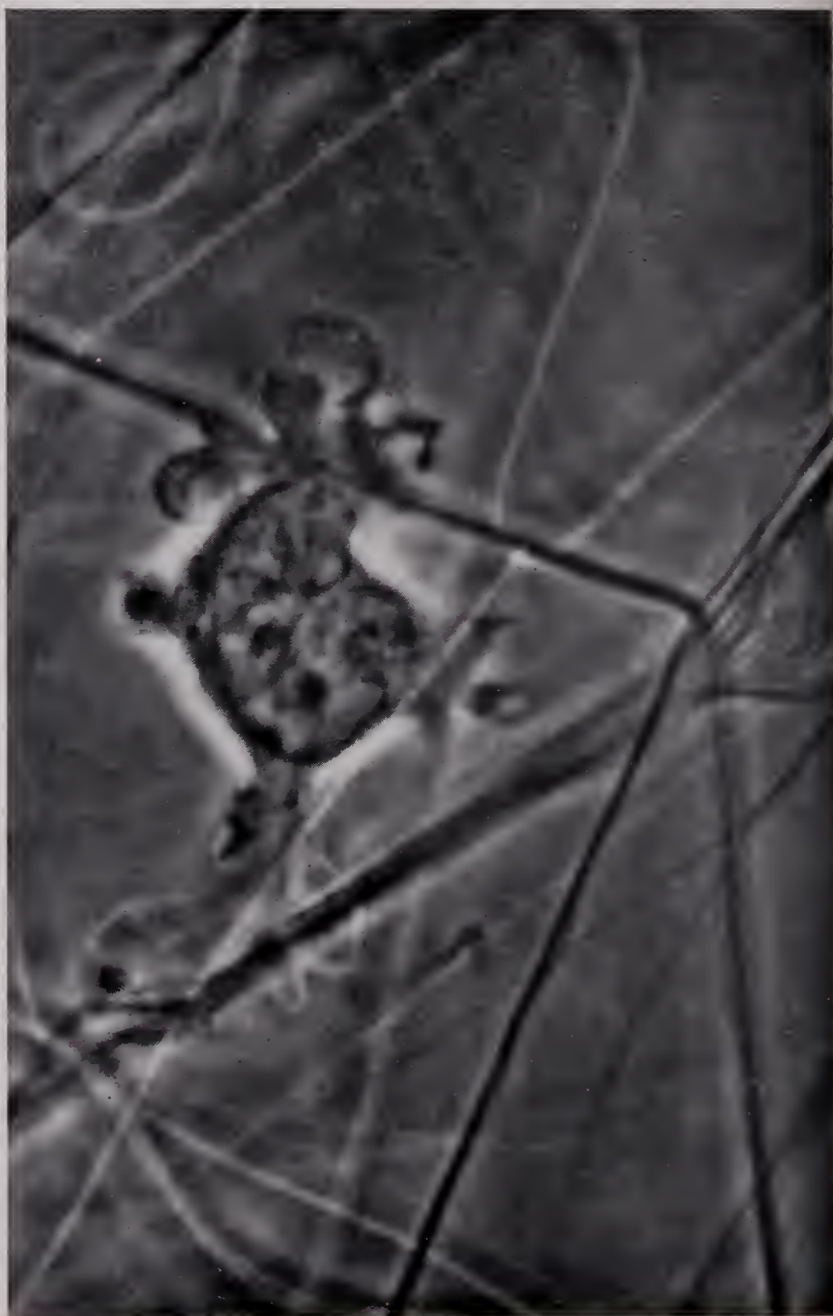
In PERIPATETICS in the March, 1967, issue the statement that Dr. Milton Hamolsky had been appointed a member of the active staff at Roger Williams General hospital was in error. The item should have noted that Doctor Hamolsky was named as a Consultant in the Department of Medicine.

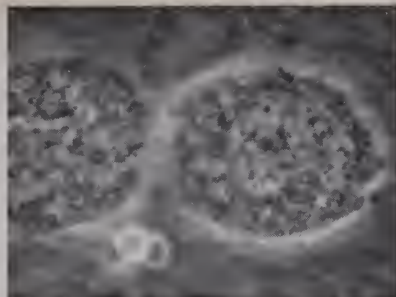
INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

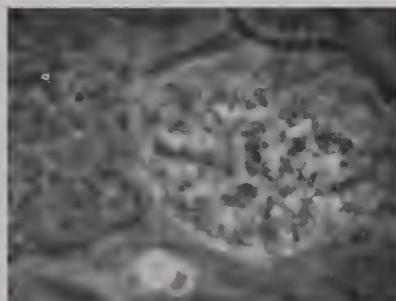
You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.





Phase-contrast microscopy showing mast cell before injury.



Mast cell (after injury) has broken up and released cytotoxins.

Visual evidence of how corticosteroids influence the inflammatory reaction

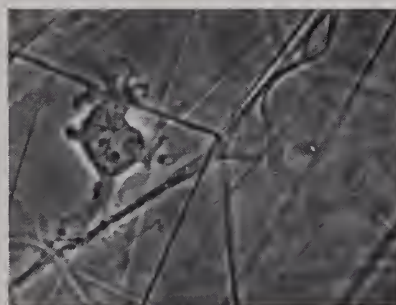
Working with phase-contrast cinematography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

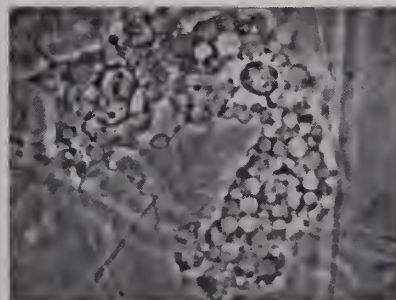
In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.

How corticosteroids change the picture

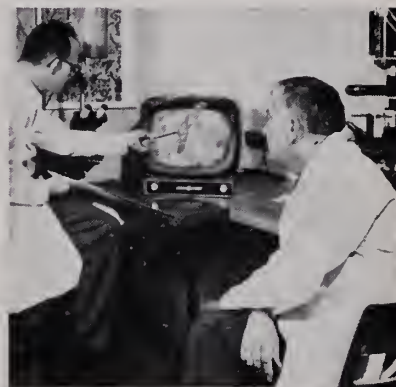
Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid—Synalar (fluocinolone acetonide)—the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.

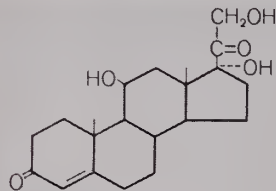


In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

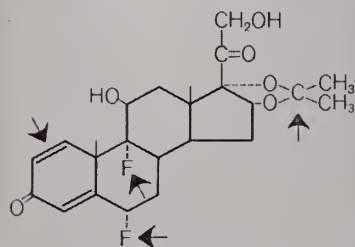
*A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more corticosteroid. And it can often do it more effectively.



Hydrocortisone

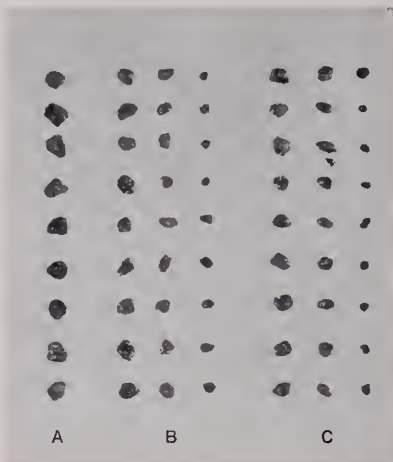


Fluocinolone Acetonide (Synalar)

- a double bond between carbons 1 and 2
- fluorine substitutions at both the 6- α , and the 9- α positions
- the addition of the acetonide at the 16- α , 17- α positions, thus providing one of the most potent topical corticosteroids available.

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY¹⁻⁴ is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B—injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C—injected with fluocinolone acetonide—but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY¹⁻⁴ also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. **Contraindicated** in individuals with a history of hypersensitivity to any of the components. **PRECAUTIONS:** Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for pro-

longed periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. **SIDE EFFECTS:** Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. *Ann NY Acad Sci* 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. *Proc Soc Exp Biol Med* 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: *Methods of hormone research*, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

For inflammatory
dermatoses...
by any measure
a topical corticosteroid
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Synalar® (fluocinolone acetonide)

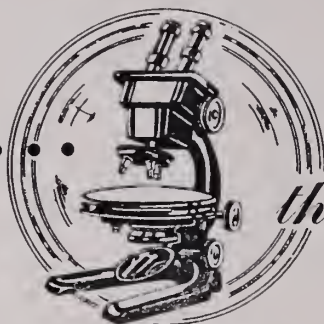
Milligram for milligram
one of the most active topical
corticosteroids available

Rapid and predictable
in antiinflammatory and
antipruritic activity

Results often comparable to
those of systemic corticosteroids
with fewer hazards

fluocinolone acetonide — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

THROUGH .

*the Microscope***"GIVE A MAN A FISH"**

"Give a man a fish," an old proverb says, "and you feed him a day. Teach him to catch a fish and you feed him for life." Some few of the programs coming out of Washington are directed at improving the level of competence of individuals but on the broad front they are handing out fish rather than teaching people to catch their own. No more dramatic proof of the destructive nature of such paternalism can be found than in the story of the sea gulls of Conch Island, Florida, just off the waterfront at St. Augustine. A few years ago, their pitiful plight made news in papers all over the nation.

The Conch Island gulls were the pride of the Atlantic, powerful of wing, keen of eye, flashing, slashing, diving fishermen. For years they would fly each morning far out to sea, search out their small fish prey school and dive among them to eat their fill. Then the shrimp fleet moved into St. Augustine port. In the late evening each day the fleet would come in from the shrimp grounds and at dockside clean thousands of pounds of shrimp. The water was littered with bits of culled shrimp. The Conch Island gulls saw the bonanza. They quit flying out over the ocean hundreds of miles for food. Often the tide even brought the shrimp meat right up on their Conch Island beaches — supper served in bed!

For three years the shrimp fleet stayed at St. Augustine. Then it moved far around the coast. The Conch Island gulls waited in vain for their food to be served up. After a few days they began screaming. They were starving. The shrimp "hand out" had ended. The St. Augustine residents heard the mounting screams and noticed the gulls dying. They investigated. They found that the gulls had lost the ability to hunt and fish for themselves.

In the animal kingdom or in human society, the "hand out" program is the most dangerous aspect of the "Welfare State."

(National Education Program Letter).

NO PROOF OF THERAPEUTIC EQUIVALENCY, GODDARD STATES

There is no proof to support the claim that generic and trade name drugs are therapeutically equivalent, according to Dr. James Goddard, Food and Drug Administration Commissioner. Goddard expressed this view in an ABC radio interview in answering the question, "How do you feel about the proposal that drugs should be sold under their generic name rather than the trade name?" In answer Goddard declared:

"At issue here is the question of whether or not the drugs, all the drugs in the market place, are therapeutically equivalent, whether they are purchased or prescribed under trade name or what I call public or generic name. I wish we could say that was so but we just don't know this to be true at the present time. There is going to have to be a considerable amount of work done in order for us to assure the physician that any drug he wishes to prescribe — and the choice should be his, as to whether or not a trade name drug or a public-name drug is prescribed, but our job is to see to it which ever he chooses that the drug is therapeutically active."

The commissioner, asked, "Have you had any suspicion that the prices were being manipulated in the drug aarea?", gave this reply:

"No, I haven't. Now this is a very competitive field. Whether you are talking about over-the-counter drugs or prescription drugs. Many people, you know, feel that drug prices are too high. Well, I think anything that is unwanted — basically, none of us wish to make the expenditure for drugs or illnesses of any kind, so unwanted expenditures are always too high no matter what their price level is.

"I might say, if I may, though, drugs today, are more potent, they keep more people out of the hospital, they are able to be treated at home. Because of good therapeutic agents the period of hospitalization is often shortened, and drug prices have

(Continued on Page 319)

“Take a laxative” is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted.

On the other hand, Dulcolax

provides a nearly normal movement. Through its unique contact action, it induces the kind of natural contraction waves of the colon necessary for gentle, complete, comfortable bowel movements.

For your next constipated patient, try Dulcolax—the laxative with the gentle touch.

Dulcolax, brand of bisacodyl tablets (5 mg.)

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Geigy Pharmaceuticals
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Geigy Chemical Corporation
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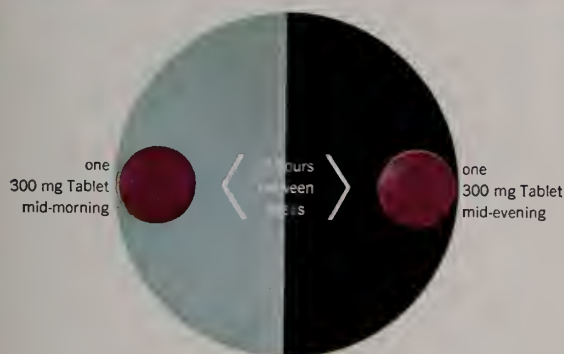
Dulcolax[®] a gentle persuasion

Geigy



why wonder about a drug when you know

DECLOMYCIN[®] **DEMETHYLCHLORTETRACYCLINE** is effective b.i.d.



It's made for b.i.d.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essen-

tial. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York



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Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅓ oz. with ophthalmic tip.
Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'[®]

brand

POLYMYXIN B-BACITRACIN-NEOMYCIN OINTMENT



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

THROUGH THE MICROSCOPE

(Continued from Page 318)

certainly not increased as much as other costs of medical care, such as the cost of a bed in a hospital, the hospital bed-day cost or physician-visit cost."

MARATHON ATTRACTS DOCTORS

Bill Kipouras, reporting for the Boston *Herald*, revealed doctors not only worked at the task of caring for the runners in the classic Boston Marathon on April 19, but not less than twelve physicians were entries in the race. He reported that the frontrunners in distress will have assurance that No. 86 is Dr. George A. Sheehan, running for the Central Jersey Track Club. Not far behind, No. 118, will be Dr. Don Richardson of Winchester, Va.

Entries 262, 273, 276 and 279, in order, will be Dr. Alex E. Ratello, Minnesota Road Runners; Dr. Larry Delaney, South Jersey Track Club; Dr. Larry R. Boies, Jr., Twin Cities Track Club, and Dr. Gabe Mirkin, Washington, D.C.

Six other M.D.'s will be further back, including Dr. Robert K. Leet of Boston and Dr. Gerald H. Cohn of West Newton.

"It's not unusual to have so many from the medical profession. These people are physical fitness conscious, like anyone else," notes Jock Semple, the noted physio-therapist who helps to mould the race.

"We've got an orthopedic surgeon, Tom Berry, Jr., from Brockton."

PHARMACISTS LAUNCH POISON CONTROL PROGRAM

Each pediatrician in the State has received a pad of order blanks from the Rhode Island Pharmaceutical Association to be distributed to parents of their patients, which will entitle them to one ounce only of IPECAC. The program, launched by the Association's public relations committee, aims at poison prevention. Pharmacies participating in the program will provide the ipecac free of charge, and the Association will furnish specially prepared labels to be affixed to the one ounce bottles.

ATLANTIC CITY SITE OF AMA JUNE MEETING

The 116th Annual Convention of the American Medical Association will be held in Atlantic City June 18-22 this year. Convention Hall and surrounding hotels will house the Scientific Program; the House of Delegates will meet at the Chalfonte-Haddon Hall Hotel.

Among special presentations planned are four general scientific sessions on backache, healing, patient care, and sex.

The 22 Scientific Sections will offer programs individually, and many will hold joint meetings on subjects of common interest. A full schedule of

medical motion pictures is planned. At least five color telecasts will be broadcast, live from a Philadelphia hospital in cooperation with the University of Pennsylvania School of Medicine.

At the 1966 Annual Convention about 600 scientific papers were presented, and nearly 300 scientific exhibits were on display as well as hundreds of industrial exhibits.

No other medical meeting in the world matches the range of subjects presented, from reviews of general medicine to experimental medicine and therapeutics.

PEDIATRICIAN COUNSELS ON CHILDHOOD POISONING PREVENTION

In a study of children between 20 and 40 months of age, Alan K. Done, M.D., reported that conventional screw caps or the new safety closures on bottles "proved to be easily opened" while tablets individually packaged in "strip pack reduced the number of tablets ingested."

Dr. Done, who is Associate Professor of Pediatrics at the University of Utah Medical Center, announced his findings in a scientific exhibit at the meeting of the American Academy of Pediatrics at the San Francisco meeting.

Under the title "A Realistic Approach to the Prevention of Childhood Poisoning," Dr. Done indicates that prevention of childhood poisonings requires more than an educational campaign to keep medicines out of children's reach. In 60 per cent of accidental poisoning cases, the bottle or box was not in its usual storage place when the children found it. Also limiting the number of doses per package will help only with children's aspirin but not with adult aspirin, because so few of the latter tablets can produce poisoning.

Dr. Done indicates that over 25 per cent of accidental poisonings among children are caused by aspirin. His exhibit reviews 500 cases of children under five, and indicates that the more serious cases are caused by adult aspirin. Although 435 cases (87 per cent) involved children's 1¼ grain aspirin, only 7 cases or 1.6 per cent in this group required admission to the hospital. However, in the 65 cases when children ingested adult aspirin, 14 per cent of the patients had to be admitted to the hospital.

FULL DIMENSION OF NURSE SHORTAGE REPORTED

The full dimensions of the nursing shortage in the United States were revealed recently with the issuance of "Data," a fact sheet on the nursing situation prepared by the National League for Nursing, New York.

The fact sheet states that there are 621,000 professional nurses employed today while the need is for 746,000 — a shortage of 125,000. Prepared
(Continued on next page)

as background for the League's eighth biennial convention to be held May 8 to 12 at the New York Hilton Hotel, it was made public by Inez Haynes, R.N., general director of the League.

"Authorities set the goal for 1970 at 850,000 to 1,000,000 active R.N.s," says the summary. "The bare facts show that the shortage can reach some 344,000 — more than one-third the total need — in three years. This means thousands of budgeted staff vacancies in hospitals and other agencies, insufficient and improperly prepared faculty in many nursing education programs, and inadequate nursing for the American public."

A shortage of licensed practical nurses also exists. The total number now employed is placed at 282,000, while the need is for 311,000.

"Actually," Miss Haynes explained, "the number of practicing registered nurses (R.N.s) has increased tremendously in the last ten years — from 430,000 to 621,000. I know no other profession that has grown more rapidly. But events have outstripped the growth. Not only have the population explosion, the growth of health insurance, and the advent of Medicare and Medicaid increased the demand for nurses, but more highly specialized knowledge is required of the modern nurse. Nursing responsibilities have increased proportionately to the increase in medical knowledge and techniques."

RADIOLOGISTS FAVOR SEPARATE BILLING IN HOSPITALS

Separate billing for professional services in voluntary hospitals has become the practice pattern for two thirds of American radiologists practicing in such institutions, according to the results of a survey of its members by the American College of Radiology.

Some 2219 radiologists and groups from the 3094 respondents practicing in voluntary hospitals indicated that they are billing for all or part of the patients served. Total billing for all patients has been established by 1573. The other 646 of the 2072 said that they are billing all patients in one or more of several hospitals served or else they are billing part but not all of their patients in a single institution.

The current survey, the third since the College recommended separate billing to its members in October, 1965, also showed 506 radiologists still negotiating with hospitals to begin their own patient billing. Another 369 indicated no intentions of changing previous arrangements with hospital. The total of 3824 respondents also included 730 radiologists whose practice in offices or government hospitals involves no private billing to hospital patients.

(Continued on Page 326)

VALIUM® (diazepam)Roche®

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.



Roche Laboratories
Division of
Hoffmann-LaRoche Inc.
Nutley, N.J. 07110



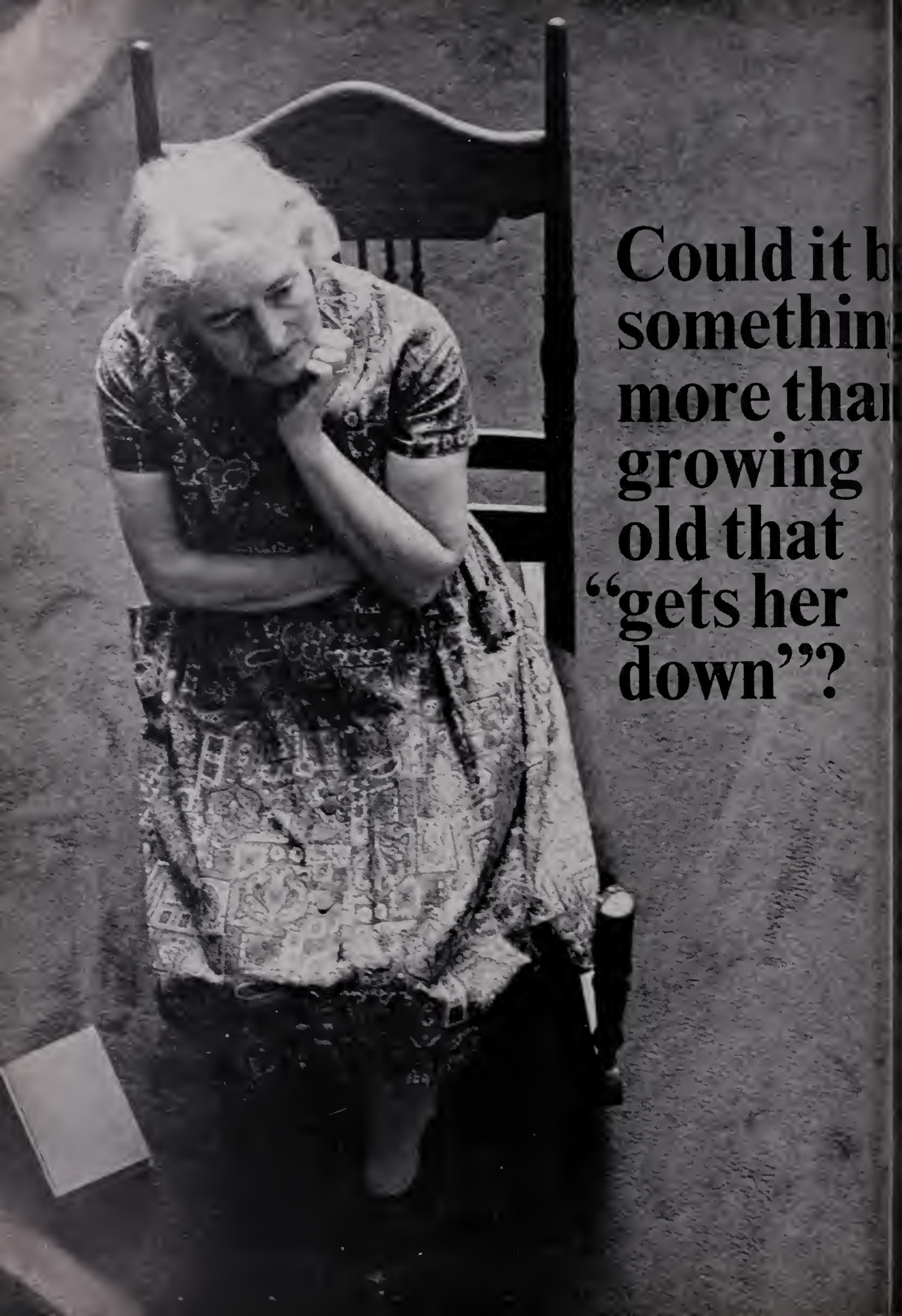
IMPORTANT NEW INSIGHTS INTO HUMAN RESPONSE TO EMOTIONAL STRESS:

Impressive new confirmation of the effectiveness of Valium® (diazepam)

Ask your Roche representative to arrange a presentation of this important and fascinating new technique of research in emotional stress—a new methodology...quantitative, objective measurement with double-blind controls.

Please see opposite page for important prescribing information.





**Could it be
something
more than
growing
old that
“gets her
down”?**

Mild mood depression, poor appetite, little interest in the present or future. Does this picture mean that she's giving in to functional fatigue?

When functional fatigue is part of her problem, Alertonic can help counteract accompanying apathy and inertia. It helps lift mood, stimulate appetite, and establish new interest in daily life.

Pleasant-tasting Alertonic combines pipradrol hydrochloride—a gentle cerebral stimulant—with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Especially in the aging patient, nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding, and encouragement. Between visits, however, your prescription for Alertonic can help keep your patient from giving in to functional fatigue.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals ...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Available only on prescription

Alertonic®

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%, pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B₁) (10 MDR*), 10 mg.; riboflavin (vitamin B₂) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B₆), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.

†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

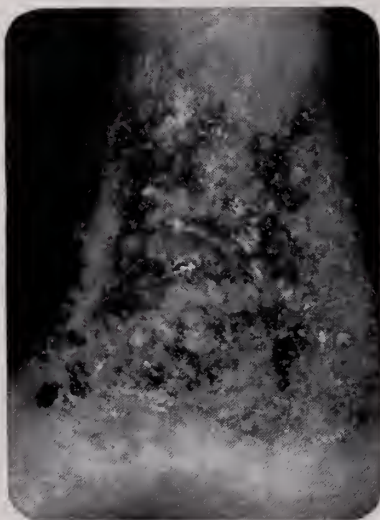
Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

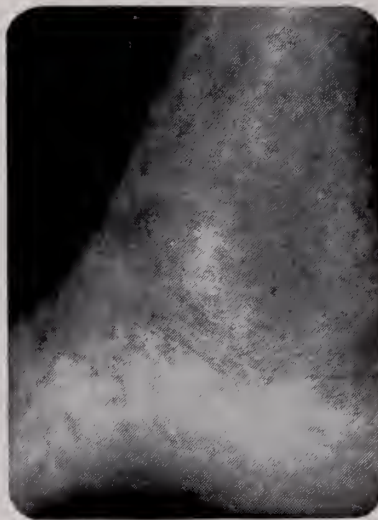
Merrell

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Cincinnati, Ohio 45215

Eczema of many years... controlled in two weeks



Before treatment



After treatment —
with ARISTOCORT Topical
Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side

effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive non-permeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

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Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%

Triamcinolone Acetonide

Also available in foam form.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED
COMBINATION
OF THE MOST WIDELY
USED ANTACIDS—
FOR RAPID
NEUTRALIZATION.
PLUS SIMETHICONE—
TO CONTROL
THE FACTOR WHICH
ANTACIDS ALONE
CANNOT INFLUENCE.

Mylanta[®]

- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

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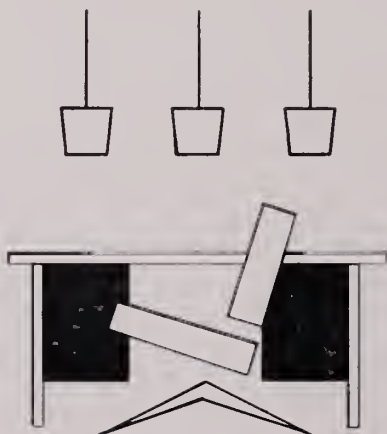
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THROUGH THE MICROSCOPE

(Continued from Page 320)

AVERAGE HOSPITAL STAY OF MEDICARE PATIENTS RISES

Average length of hospital stay for Medicare patients in the nation's community hospitals increased for the fifth consecutive month in December, according to Hospital Indicators, an monthly feature in *Hospitals*, Journal of the American Hospital Association.

Reporting on December 1966 figures in the March 16 issue of *Hospitals*, survey results show that the over-65 age group had an average length of stay of 13.3 days per admission in December while the under-65 patients held relatively constant at 6.8 days. Since July 1 when Medicare became effective the average length of stay for the over-65 group has increased from 11.2 days in July to 12.0 in August, 12.5 in September, 12.6 in October, 12.7 in November to the latest report of 13.3 days.

The study is based on data from a representative sample of 628 hospitals selected from a universe of 5684 community hospitals registered by the American Hospital Association.

The latest Indicators also revealed a record high \$56.69 for 1966 in total hospital expense per patient day and a yearly high of \$35.28 payroll expense per patient day. A year earlier the hospitals reported \$49.87 total expense per patient day and \$30.67 payroll expense per patient day.

Increases in total expense per patient day and payroll expense per patient day reflect the wage raises received late in 1966 by nurses and other hospital personnel in nearly every section of the country.

BOSTON U. MED. SCHOOL HONORS STERLING DRUG EXECUTIVE

J. Mark Hiebert, chairman of the board and chief executive officer of Sterling Drug Inc., has been honored with the presentation of a distinguished service citation presented by the School of Medicine of Boston University. The citation recognizes Dr. Hiebert's "thirty-five years of loyal service as an alumnus and friend of the School of Medicine."

Dr. Hiebert, Vice-Chairman of the Boston University Board of Trustees, received an M.D. degree from its School of Medicine, as did Mrs. Hiebert.

The citation, which was awarded at the University's Founders' Day ceremonies, notes that "as chairman of the alumni effort in the capital fund campaign for the new Instructional Building, he provided the effective leadership that brought alumni support for the Medical School to an all-time high."

(Continued on Page 366)



Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?

in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.d.
(initial adult dose)

Indications: Urinary tract infections caused by gram-negative and some gram-positive organisms.

Effects: Mainly mild, transient gastrointestinal disturbances; in occasional instances, drowsiness, fatigue, pruritus, rash, urticaria, mildophilia, reversible subjective visual disturbances (overbrightness of light, change in visual color perception, difficulty in focusing, decrease in visual acuity and double vision), and reversible photosensitivity reactions. In rare cases, overdosage, coupled with certain predisposing factors, has produced convulsions in a few patients.

Contraindications: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. Pending further experience, like most other therapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or impairment of kidney function. Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the supervision of a physician. Bacterial resistance may develop.

Monitoring: Testing the urine for glucose in patients receiving NegGram, Clinistix® or Tes-Tape® should be used since other reagents give a false positive reaction.

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References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antibacterial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

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MYOCARDIAL INFARCTION AND THE INTENSIVE CORONARY CARE UNIT IN A COMMUNITY HOSPITAL

Mortality Due to Arrhythmia Can Be Significantly Reduced. Early Mortality Due to Shock and Decompensation Remains

FRANCIS D. LAMB, M.D., WILLIAM E. MCKENNEY, M.D.,
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THIS IS A REPORT of the first seventy-four cases of acute myocardial infarction cared for in the intensive and coronary care unit (ICCU) of a two hundred bed community hospital during the period June 1, 1965 through September 30, 1966. It compares cases treated in the unit with those acute infarctions treated in the usual hospital facilities during the same period.

MATERIAL AND METHODS

The unit at this hospital consists of six beds and is open to all cases requiring intensive care. It has as part of its equipment a monitor pacemaker and defibrillator apparatus. Nurses, all volunteers, who are assigned to this unit are well trained in resuscitation techniques, in recognition of arrhythmias including in particular ventricular fibrillation and asystole, and in the operation of the pacemaker and defibrillator devices. Each nurse on any particular tour of duty has a specific assignment should an emergency requiring any of the above procedures arise in the absence of a physician skilled in these modalities. A permanent lead electrocardiographic record is inscribed as part of programming whenever possible, especially in arrhythmias requiring pacing or defibrillation. This lead tracing is attached to the progress sheet of each patient together with other pertinent data. It often serves well as a running chronicle in later review.

Our cases have come to the unit consecutively and without any selection. They derive from the emergency room, from private physician referral, or from the hospital patient population. All cases were demonstrated to have infarction using criteria similar to those of Killip¹ for established acute myocardia infarction. Electrocardiograms, enzyme studies, and in most cases a combination of these

data were positive. In a few instances only post-mortem confirmation was obtained.

There was a total of 128 cases admitted to the intensive and coronary care unit with a question of acute myocardial infarction during this period. Seventy-four of these by our criteria noted above were felt to have had acute myocardial infarction, or 58.7 per cent of those admitted. The house admissions numbered 132, with 61 or 46.2 per cent proving positive after study. These figures are in keeping with Lown's impression of a 50-70 per cent incidence of correct diagnosis in cases entering coronary care units.¹

RESULTS

In the intensive and coronary care unit there were twenty deaths, or a mortality rate of 27 per cent. This included several moribund patients as well as others admitted in profound shock, in failure, or with a combination of shock, failure and arrhythmia. These latter we were totally unable to alter from the beginning.

First day deaths (within twenty-four hours) numbered twelve, or 57.8 per cent. Of these eleven were classified as "poor" on entry. The twelfth was classified as fair without shock or failure on entry but with occasional ventricular premature contractions. This patient died suddenly eight hours later in profound shock and with ventricular fibrillation without any response to defibrillation attempts. Nine of this group had combinations of Class III-IV American Heart Association (AHA) decompensation with severe shock or major arrhythmia. Five of these twelve died within twenty minutes to one hour after entry, and a total of eight died within six hours of entry.

In the general hospital cases there were twenty deaths, a mortality rate of 32.7 per cent. Again first day deaths were important, totalling eight, or forty per cent. However nine, or forty-five per cent, died six days or more after infarction. Records of these cases compared with those of the ICCU were relatively non-informative, particularly as regards arrhythmia. Only seven instances were recorded

(Continued on next page)

among the twenty deaths and these by chance on occasional electrocardiograms. This represents only 35 per cent of the group. Our impression is that about 80 per cent of cases will demonstrate arrhythmia, which suggests that possibly some 45 per cent of the hospital treated cases had irregularities which went undetected. The considerably larger number of first day deaths in the coronary care unit (58.7 per cent as compared to 40 per cent) suggests that the worst cases in respect to shock and failure were sent by the respective referring sources to the unit. Whereas 40 per cent of the ICCU deaths occurred within six hours of entry, only 15 per cent of the cases at large expired so quickly.

STATISTICS AND EVALUATION

Considerable variance may be noted in statistics compiled by coronary care units, depending upon whether an open unit policy of accepting all cases or a semi-triage system is in effect. The latter policy may virtually exclude those cases judged irreversible or moribund from the benefits of the intensive care unit. This is noted by Unger¹ in his discussion of results obtained in coronary care units. Again, if an efficient rescue squad service is available along with a rapidly moving accident room staff, unfettered by holding areas or other mechanisms of delay, apparently less favorable statistics will result. Expressing all this numerically the following results are obtained as applied to our unit. When operating in normal fashion, accepting all patients judged in need of intensive care and not excluding those in severe shock and decompensated, a total mortality rate of 27 per cent is noted. This is comparable to that reported by Killip, Julian, Unger, and others.¹

If we exclude the five moribund cases (25 per cent of all our deaths) dying in extreme shock or failure within twenty minutes to one hour of entry and the additional three dying within six hours as totally unsalvable under present-day accepted treatment methods, our mortality rate improves to 18 per cent. This mortality rate does not include a case of septal rupture (see autopsy section).

Using the same approach of excluding the moribund and those dying within six hours of entry as completely unsalvable, the mortality for general hospital treated cases would become 29 per cent, i.e. 11 per cent higher than that of the unit. What really seems to be demonstrated by such complications and manipulations is that little has yet been accomplished in the areas of serious shock and decompensation.

Among the ICCU fatal cases nine postmortem examinations, a 45 per cent rate, were obtained. Permission for six of these was obtained on cases

expiring during the first day, which was felt to be a good showing, as ordinarily in such circumstances little rapport with the family is established. All postmortem examinations demonstrated acute myocardial infarction often together with older infarctions and extensive myocardial damage. One case dying within twenty minutes of entry was found to have a hemorrhagic pancreatitis complicating an acute posterior myocardial infarction. A third autopsy case died nine days after a gastric resection for a bleeding duodenal ulcer complicated by cardiac arrest during surgery and later episodes of complete auriculoventricular (AV) and 2:1 block. In this case successful pacing was accomplished initially, but death came eventually due to ventricular asystole. Postmortem examination revealed an acute myocardial infarction involving the septum and left anterior descending artery.

Nine postmortem examinations were obtained among deaths in the general hospital treated cases; again all showed acute myocardial infarction. One case dying on the seventh post-infarction day also demonstrated pulmonary and cerebral embolizations.

INTERESTING HIGHLIGHTS

Five cases of complete heart block with Stokes-Adams syndrome were treated in the unit. All had myocardial infarction. Three lived after multiple pacemaker efforts. One died within forty-five minutes of entry after being paced and returned to normal sinus rhythm some eight times. A bipolar electrode catheter was placed in the right ventricle of one fifty-year-old male who entered the unit in complete heart block with Stokes-Adams phenomenon following an acute myocardial infarction. In spite of intravenous Isuprel® he required nearly constant external pacing; the introduction of the transvenous catheter electrode maintained rhythm and eliminated all discomfort associated with the external current. A forty-four-year-old male presenting a similar problem also recently benefited from bipolar catheter electrode introduction when nearly constant pacing (every three minutes or less over a four hour period) was required.

NURSES AND THE UNIT

We firmly believe, as stressed by Meltzer,² Olson,³ and many other authorities, that nurses are the *sine qua non* of a coronary care unit. They should be highly trained in artificial respiration technique by participating in practice sessions using mouth-to-mouth and bag (Ambu,® Ohio) methods together with external cardiac massage. Training should be pursued until personal skill has been perfected. The nurses should be trained in basic electrocardiography, especially as to arrhythmias, in order that the physician may be alerted early and

thus enabled to institute proper therapy to avoid more ominous sequelae.

Recognition of major catastrophies, such as ventricular fibrillation and asystole, is quickly mastered. For optimum effect the nurse must initiate defibrillatory or pacemaking procedures immediately, as noted by Yu et al.,⁴ if a physician skilled in these procedures is not present. We know that cases have been saved in our own and others' units by prompt and efficacious action. Training and education should be continuous; methodology and identification of arrhythmias should be practiced on each shift. Group lectures and conferences are held at least once weekly using all available media, i.e. films, slides, and current cases in the unit. The Anesthesiology Section should teach mechanics and physiology of breathing, airway care, and assisted respiration. A "Buddy" System with one nurse teaching another and a definite stepwise program for new personnel are essential. A basic requirement in addition to the initial training is that the program be continuous.

Assignment to this unit must be completely vol-

untary and motivated by desire on the nurses' part. Careful interview by the director in regard to personality, physical health, ability, and emotional stability is essential. Nurses of the unit should not be transferred at will to other hospital work. No untrained person should be employed in the unit except as a student. A "Green Beret" image is constantly sought.

DISCUSSION AND IMPRESSIONS

Coronary care units at present do not materially change mortality rates in cases complicated by severe shock, decompensation, or a combination thereof. Most myocardial infarction deaths still occur in the first seventy-two hours, the greatest number in the first twenty-four.

There still remains a fairly significant number of patients, up to 20 or more per cent, who die several days after onset and who are not benefited by the unit. Arrhythmias, a very common occurrence in myocardial infarction, may, as indicated in studies by Meltzer,⁵ be charged with some 47 per cent of the associated mortality. About 80 per cent of our

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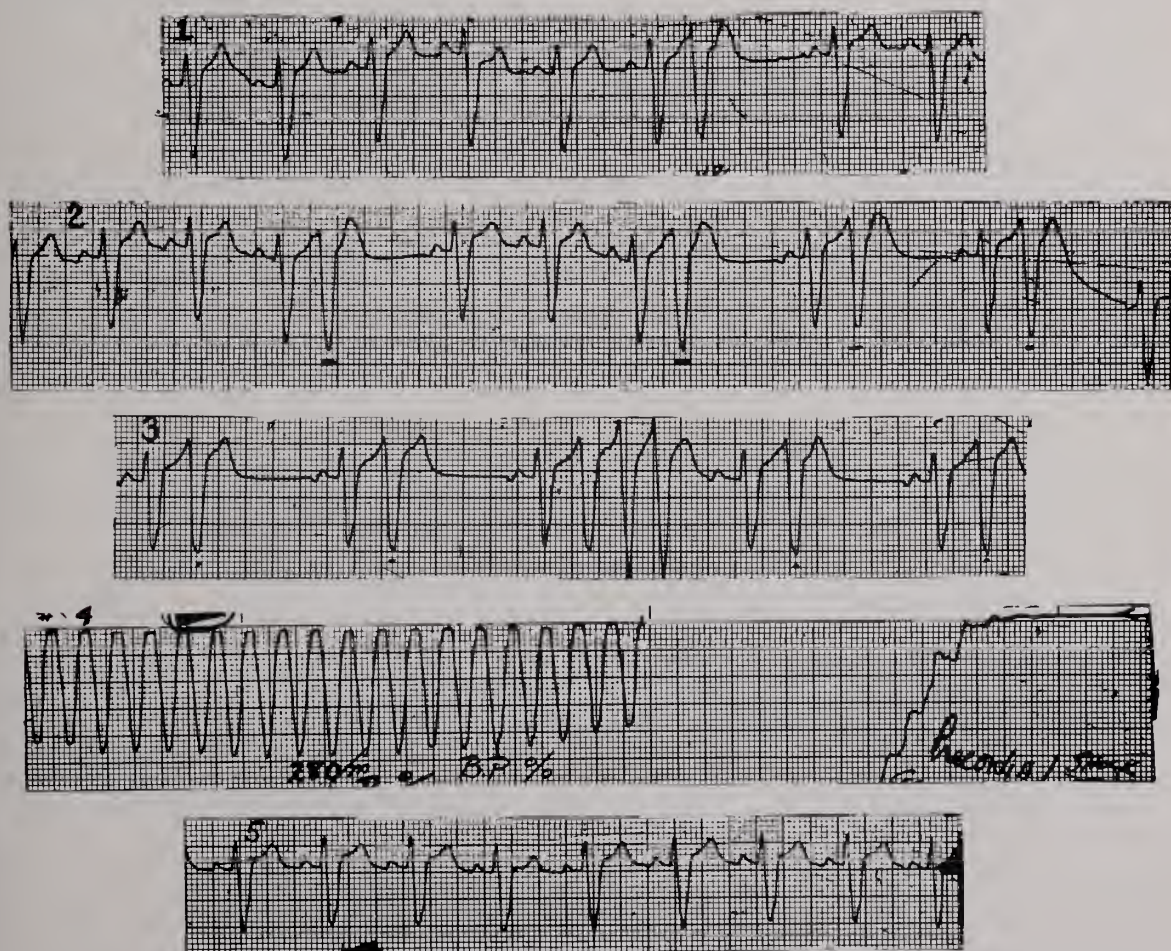


Fig. 1 Tracings #1—#4 of a patient in the unit demonstrating rapid, within one hour, transition from "simple" occasional ventricular premature contractions to "lethal" ventricular flutter accompanied by profound shock. Tracing #5 shows sinus rhythm (accompanied by recovery from shock state) restored following electrical conversion.

cases demonstrated dysrhythmia of various types persisting for two to four or more days post-infarction. Our unit stay averaged five days and was devoted largely to monitoring. Discharge from the unit was effected when among other criteria control of the irregularity had been achieved either by treatment or spontaneously.

We feel strongly (Fig. 1) that without monitoring early warnings of impending disaster may be completely missed. As noted above only 35 per cent of arrhythmias were detected among those dying in the general hospital group. An increasing number of premature contractions or a modest degree of block may be forerunners of lethal fibrillation, tachycardia, complete block with Stokes-Adams attacks, and similar arrhythmias. Without constant oscilloscopic observation opportunity for early and successful treatment may be lost. If no arrhythmias or relatively infrequent arrhythmias develop in two to four days and other conditions are stable, it is probably safe to discharge the patient from the unit.

While all myocardial infarctions should be accepted in a coronary care unit, special effort should be made to bring in for monitoring those cases regarded as of mild or of modest severity. (We think the idea of mildness is a misconception, as no cases can be more treacherous.) Herein lies the most profitable and effective area for unit care at present.

Further study is needed of the controversial vasoconstrictor-dilator, cortisol, digitalis, counterpulsation, and propranolol therapies with special reference to improving the presently meager salvage in shock and decompensation complications.

It is our impression, as has been similarly observed by Nachlas et al.,⁶ that a definite subjective advantage, or at least an indefinable one from an objective point of view, accrues to the coronary patient treated in the unit. This may be attributed to improved morale or confidence and hope engendered by his participation in an environment where he is visually aware of an abundance of care. While a few physicians feel that a patient may be more disturbed emotionally in such a unit, our experience has been overwhelmingly to the contrary. We have in a few instances reluctantly refrained from placing a patient in the unit on these grounds. One arrhythmic death in a forty-four-year-old male occurred under just such circumstances in another section of the hospital without an adequate opportunity for pacing. On many occasions we have heard expressions of satisfaction and praise for the excellent nursing care and function of the unit.

CONCLUSIONS

Early and vigorous treatment of arrhythmias, using currently accepted drugs such as digitalis, lidocaine, and Pronestyl,[®] and such procedures as

prompt electrical conversion or transvenous pacing as the case may warrant, is of great importance. Such an approach will prevent many seemingly benign disorders, such as premature contractions, minimal failure, and early degrees of block, from becoming lethal.

The unit director should promulgate accepted methods of treatment in the unit.

We feel, as Day⁷ indicates, that such units offer superior care to the coronary patient. We feel also that as therapy becomes better crystallized such facilities will lead the way to improved salvage in cases complicated by shock and decompensation.

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ONE SENTENCE ESSAY

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PERMANENT TRACHEOSTOMY IN CHRONIC OBSTRUCTIVE PULMONARY EMPHYSEMA

— CASE REPORT WITH PATIENT'S INVENTION —

New Device Invented by Patient Facilitates Management of Permanent Tracheostomy

MARY D. LEKAS, M.D.

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CHRONIC OBSTRUCTIVE EMPHYSEMA has become one of the foremost causes of pulmonary disability, and is beginning to equal bronchogenic carcinoma as a cause of death from diseases of the respiratory tract.¹ Many of these patients do well for years if they stop smoking,² live within their decreased exercise tolerance, and get antibiotic therapy when they develop respiratory infections. These patients are prone to respiratory infections, viral or bacterial, that may precipitate a bout of severe hypoventilation, acute cor pulmonale, and impending death.³ If proper intensive therapy is instituted, this process may be reversible so that the patient could continue to live his productive, but limited, life.⁴

The physiological defect in chronic obstructive pulmonary emphysema is a result of anatomical changes which lead to edema of the bronchial mucosa, bronchospasm, bronchiolitis, or bronchitis together with thick tenacious secretions.¹⁻⁵ The Greek word emphysema literally means "to inflate." The emphysematous patient's lower airway has lost structural support, that is, the external pull, or radial elastic traction which is normally exerted by the surrounding lung parenchyma, with a resultant tendency to collapse. The diffuse intrinsic disease of the respiratory bronchioles in the emphysematous subject results in a sharply reduced maximal expiratory flow rate,¹⁰ whereby the expiratory trapping of air distal to the obstructed respiratory bronchioles causes breakdown of alveoli, disruption of elastic tissue, and obliteration of pulmonary capillaries.⁷⁻⁸ All of which result in high residual volume and altered ventilation ratios that, when severe, lead to hypoxia, hypercapnia, and acidosis. If these conditions continue, the patient becomes exhausted from the prolonged increased work of breathing. Fatigue and muscular weakness occur, resulting in ineffective cough and clearing of secretions with further increase in hypoventilation, hypoxia, CO₂ retention and ultimately death.^{1-5, 6} When the patient is seen at this stage, we have a

desperately ill, semi-comatose or comatose, cyanotic, dyspneic individual with all the physical findings of chronic obstructive lung disease.⁹ The state of alveolar ventilation is established by the determination of pCO₂ on arterial blood.¹⁴

In acute respiratory failure the advantages of doing a tracheostomy procedure far outweigh its problems.¹⁶⁻²² Artificial ventilation by the face mask or mouthpiece is unreliable, as opposed to the direct connection between lung and ventilator through a tracheostomy tube.¹⁵⁻¹⁸ A cuffed tracheostomy tube is preferred when a ventilator is to be employed.⁵ The tubes used at our hospital are designated Moersch tracheostomy tubes. A peroral cuffed endotracheal tube may serve as well for a day or two in short-term situations,¹ but a tracheostomy is the best solution when we have a problem of copious secretions in the comatose patient.²⁴ Bronchoscopy cannot be performed very often and may even be hazardous in patients who are in shock or in such hypoxemic states. Transnasal endotracheal suction is ordinarily not adequate for these cases.

The disadvantages of tracheostomy are negligible, considering the mortality of emphysema with CO₂ narcosis.¹¹ A permanent type of tracheostomy is recommended for the long-term management of the pulmonary cripple who has recurrent episodes of acute respiratory failure with excessive tenacious secretions, poor tussive force, and CO₂ retention.²³ Alveolar ventilation is increased by reducing the anatomical dead space, thus easing the work of breathing.¹⁷ The tracheal stoma acts as a vent enabling the patient to raise sputum through his own power during cough. Also, we must remember that there is some impairment of the diaphragm in many of these patients with advanced emphysema.²³ The diaphragm loses some of its forceful pistonlike action to overcome the glottic resistance in the expulsion of secretions. One should also emphasize the proper suctioning of each bronchus — that is, by turning the head to the right to enter the left mainstem bronchus and to the left to enter the right mainstem bronchus.¹³

The concentration of oxygen used on these patients should also be mentioned — the injudicious
(Continued on next page)

use of oxygen in patients already showing evidence of CO₂ narcosis and respiratory acidosis may prove disastrous.^{19 20} The administration of high concentrations of oxygen may lead to further respiratory inadequacy because of abolition of the carotid body reflex. If oxygen is required to treat hypoxia it is best administered by a ventilator.

CASE REPORT

Mr. B.B., an 84-year-old male was first admitted to the Rhode Island Hospital on his seventy-ninth birthday in respiratory distress. Shortly after admission he became comatose, cyanotic, and appeared moribund.

He was known to have severe chronic obstructive pulmonary emphysema and exudative bronchitis. A tracheostomy was performed without any complications. There was very little improvement in the patient's condition for 24 hours. Clinical improvement did occur with repeated suctioning of the thick purulent secretions.

Adequate "bronchial toilet" with bronchodilators (Isuprel®, in this case) followed by mucolytic or wetting agents (Dornavac® was used), in addition to treatment with antibiotics (achromycin, according to culture and sensitivity reports) and expectorants, resulted in rapid and marked improvement. Within a few days the patient was ambulatory. His temperature remained at about 100°F. for the first five days, and then returned to normal for the remainder of his hospital course.

Within the first week the patient learned how to take care of his own tracheostomy tube and became skillful in the use and care of the suction catheter.

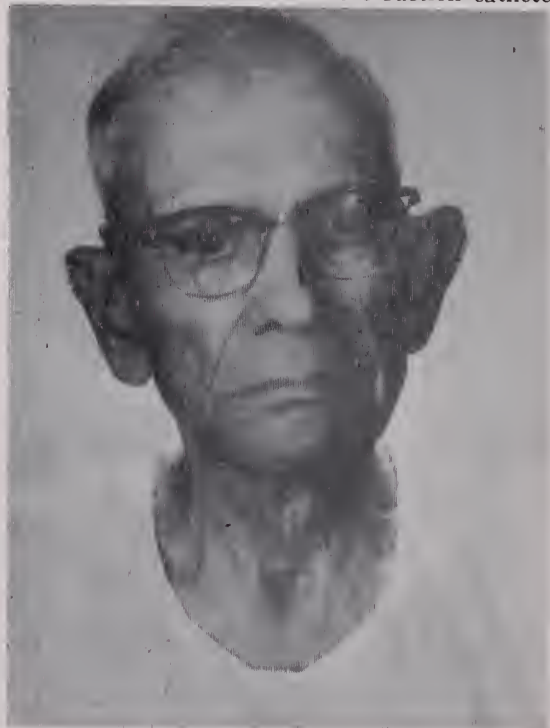


Fig. 1. Patient with Permanent Tracheostomy.

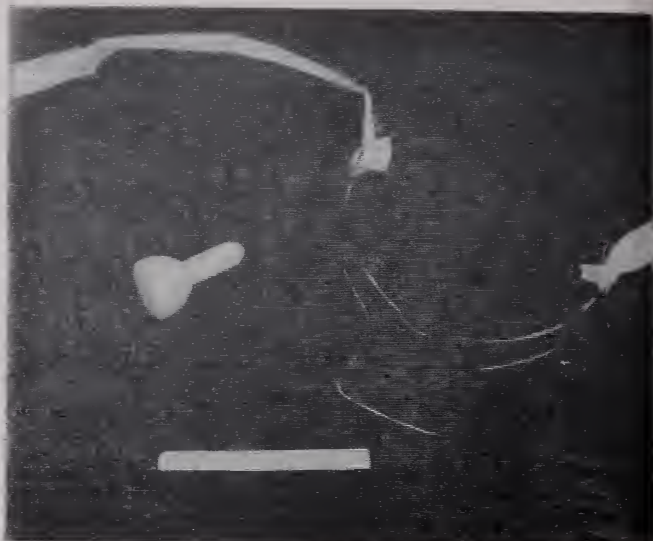


Fig. 2. Teflon® Plug and Plastic Apron.

He also learned the proper positioning of his head for suctioning either mainstem bronchus. He was discharged on the twenty-second hospital day with the following recommendations: Achromycin 250 mg. twice daily, Isuprel® drops 5, followed by Dornavac® 0.5ml. three times daily, aspiration as needed, Digitoxin® 0.1mg. daily, and Darvon® Compound 65mg. as needed for pain.

The patient continued to do well at home except for a local irritation that developed around the stoma, and also endotracheally where the distal end of the tracheostomy tube apparently caused friction and irritation of the tracheal mucosa. This was probably aggravated by his overmanipulation and frequent removal of the tube for cleansing purposes.

A Kisner tube was tried, but the patient was unwilling to use it because he felt it projected too far out from the neck area. Then a laryngectomy tube, being shorter, was inserted for a while, but since this caused considerable discomfort, he shortened his own tracheostomy tube. This appeared to be satisfactory.

During the ensuing months, the patient's propensity for forming granulation tissue gradually reduced the tracheal aperture and caused discomfort upon changing the tube. An attempt to remove the tube permanently was unsuccessful when the patient developed a respiratory infection requiring admission to the hospital because of exhaustion from cough and the advancing pulmonary insufficiency. The tube was reinserted, and tracheobronchial hygiene was established without difficulty. Shortly thereafter, a permanent tracheostomy was fashioned utilizing a mucocutaneous flap-type procedure, whereby the upper flap is made redundant enough so as to allow infolding into the tracheal stoma when the head is slightly flexed.^{21 23} This occlusion of the stoma allows the patient to carry on conver-



Fig. 3. Plug and Apron in Position. (Apron secured inferiorly by non-allergenic adhesive tape.)

sation. When suctioning is necessary, the patient extends his head and the protruding flap moves upward out of the tracheal stoma. This acts as a check valve mechanism which is controlled by head movements.

This worked well for a short time until granulation tissue formed around the stoma, disrupting the valve-like action of the skin flap. In order to compensate for this, greater flexion of the head and neck became necessary. This, however, caused considerable discomfort because of cervical arthritis and led the patient to resort to his old trade of working with plastics.

He developed a Teflon® "plug" and plastic "apron" to secure the plug in position. The stoma thus remains capped until "plumbing" is necessary. The patient vocalizes without difficulty. His activity now is limited more by his age than his disease; except, of course, when he develops an acute respiratory infection.

SUMMARY

Patients with chronic pulmonary disease, who are unable to clear their airways, are subject to acute bouts of respiratory inadequacy often requiring tracheostomy and aspiration of secretions. This is the case history of an eighty-four-year-old man who cleverly devised a Teflon® plug with plastic apron to solve problems associated with his permanent tracheal stoma.

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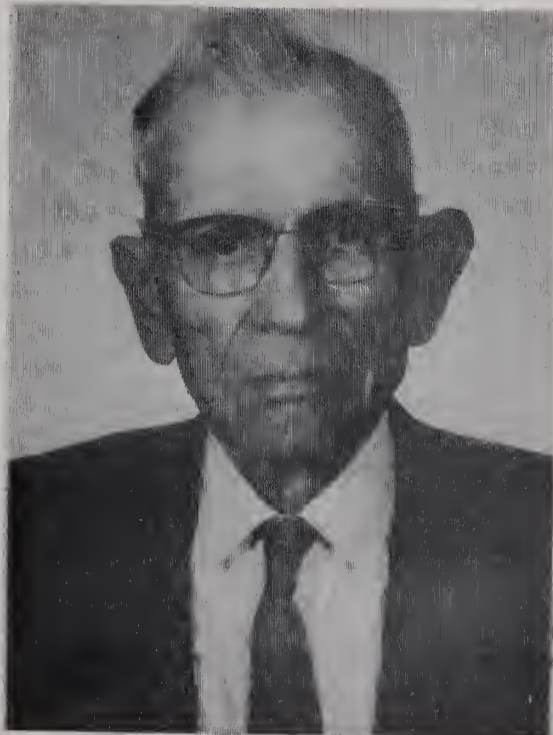


Fig. 4. "Who can tell?"

PROGRESS NOTES...

SEVERE CONGENITAL HEART DISEASE IN INFANCY —
ITS EARLY DETECTION**Early Recognition of Heart Failure in Infancy Will Facilitate
Management*

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SINCE CARDIOVASCULAR RESEARCH has provided palliative procedures to alleviate hypoxemia and to control congestive heart failure, recognition of those cases of congenital heart disease which are in need of help is important.

Ninety per cent of children developing heart failure do so during the first year of life;¹ the majority of these are in difficulty by the age of 3 to 6 months.² Mortality rates for those in failure are high, varying between 48 and 75 per cent.^{3, 4} These statistics clearly delineate the population at risk. If salvage rates are to improve, our attention must be focused on the first three months of life—to recognize the very earliest signs and symptoms of heart failure before the infant is too ill, so that he may benefit from the latest medical and surgical advances. A "wait and see" attitude now is no longer feasible and must be replaced by a more purposeful and frank approach to the problems of infant cardiac disease.

The early onset of cyanosis and the presence of congestive heart failure are indicators of severe congenital heart disease. The cardinal features of heart failure in infancy are respiratory distress, cardiomegaly, hepatomegaly, and fluid accumulation. Associated findings are heart murmur, duski-ness, tachycardia, feeding problems, and failure to gain weight. Diagnosis must depend on the correlation of history, physical examination, electrocardiogram, chest x-ray examination and cine-fluorosc-opy.

Recognizing the clinical features which are the earliest manifestations of serious heart disease in the infant age group will alert the physician to the presence of a cardiac problem and the need for specialized attention.

RESPIRATORY DISTRESS

Abnormalities of breathing occur in every instance of infant heart failure and are the first

symptoms that a physician is likely to encounter. Dyspnea,⁵ with some element of tachypnea, is the common manifestation. Dyspnea in the quiet infant appears as intercostal and subcostal retractions. With advancing failure, there is flaring of the alae nasi and suprasternal retraction. Dyspneic respirations, no matter how slight, should alert the physi- cian to the need for further investigation.

Tachypnea, or rapid respiration, occurring as a major finding is not uncommon. It represents an early and frequently missed manifestation of failure, for the infant may appear to be in no res- piratory distress at all. To the examiner's surprise, if breathing is clocked for a full minute, the res- piratory rate will range from 55-100. Careful ob- servation and clocking are necessary for the detec- tion of tachypnea at rest. Noisy breathing, "chest congestion," and "repeated episodes of pneumonia" are other less common but important manifestations suggesting cardiac disease.

Orthopnea is a manifestation of left-sided failure that can be recognized in infancy.² Orthopneic pa- tients, extremely irritable when lying flat, a posi- tion they will not tolerate, are rapidly comforted in the upright or semi-Fowler position.

ORGANOMEGALY AND FLUID ACCUMULATION

Cardiomegaly and hepatomegaly are major mani- festations of congestive heart failure in infancy. Cardiac enlargement as shown by x-ray studies or cine-fluorosc-opy occurs in 90 per cent of cases of infant failure⁵ and is almost a *sine qua non* of this diagnosis.⁶ In the infant age group, since it is not possible to judge cardiomegaly by percussion, an x-ray examination of the chest is mandatory. Hepatomegaly (enlargement greater than 2 cm. below the right costal margin) is present in 85 per cent of cases of infant cardiac failure,⁵ and indi- cates right heart failure and the need for immediate attention.

After the newborn period, subcutaneous fluid accumulation may be recognized by excessive and rapid weight gain, and by a deceptively well- nourished appearance of the skin. These findings, when associated with respiratory distress, are strongly suggestive of congestive heart failure. More commonly, the diagnosis of edema is made

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in retrospect, by rapid weight loss following digitalization and medical management.

FEEDING DIFFICULTIES AND FAILURE TO GAIN

A feeding problem is often an early manifestation of infant cardiac failure and may be the first symptom noted by parents. It is almost always associated with respiratory distress. On careful inquiry, the mother may relate that the baby is hungry but has to stop and rest frequently. Such patients can finish their formulas but take a long time in doing so. Vomiting is a frequently associated finding. Infants in advanced cardiac failure react differently. They have marked anorexia and take only small quantities.

With tachypnea and dyspnea an infant cannot suck for an adequate length of time and must rest frequently to "catch his breath." Solids, which can be swallowed quickly, are better tolerated.

The infant or child with congenital heart disease in respiratory distress, and with almost no subcutaneous tissue — the so-called "failure to thrive" syndrome — represents an advanced case of "failure to gain." Early control of infant cardiac failure can prevent "failure to thrive," and significantly diminishes the risks of diagnostic and operative procedures. Therefore it becomes extremely important to recognize "failure to gain" at its onset.

DUSKINESS AND THE PROBLEM OF CYANOSIS

In general, if there is not obvious cyanosis, varying degrees of duskinness frequently are overlooked and difficult to detect in the newborn infant and neonate. Careful and repeated observation of nailbeds, mucous membranes, and skin while the infant is quiet, and also when crying, may be rewarding and helpful. This examination is best carried out in bright daylight.

There are several normal findings which should not be interpreted as evidence of cyanosis: the nailbed duskinness which is present for several weeks following birth, the "ruddy" complexion of polycythemic newborns, and the generalized duskinness associated with a splotchy erythema as seen in the crying infant. It is of considerable importance to recognize duskinness and cyanosis early. In spite of the fact that an infant appears to be doing well, the early presence of duskinness or cyanosis almost always means serious cardiac disease and indicates the need for early evaluation.

CONCLUSION

With the knowledge that most deaths from heart failure in congenital heart disease occur during the early months of life, that palliative procedures can be performed to alleviate hypoxemia and control heart failure, and that the risks of diagnostic and operative procedures are increased in the symptomatic patient, it is essential that these infants be detected early and referred to diagnostic centers as soon as possible for specialized attention.

The author acknowledges with thanks the help of Dr. Stella Van Praagh and Dr. Banice Feinberg in the preparation of this manuscript.

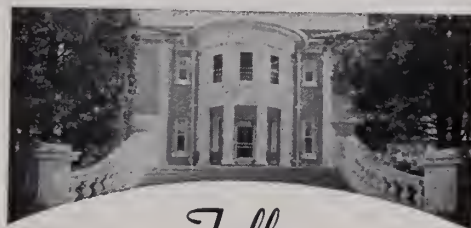
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POLYGLANDULAR ENDOCRINE ADENOMATOSIS — PRESENTING AS HYPERALDOSTERONISM —

Patient Presents Unusual Combination of Multiple Endocrine Adenomata, Peptic Ulcer, and Aldosteronism

CHARLES F. JONES, M.D., DANIEL LIANG, M.D.,
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INTRODUCTION

RECENT REPORTS, especially by Conn et al.^{1,2} on normokalemic primary aldosteronism masquerading as essential hypertension, stimulated our interest in this problem. Approximately 73 per cent of persons exhibiting "incidental nonfunctional adrenal adenomas" (average 1 cm. in diameter) at autopsy had had hypertension during life, and 20 per cent of hypertensive patients coming to autopsy exhibit such adenomas.^{3,4} The ratio of females to males was 2.5 to 1.

Our patient represents the atypical type of hyperaldosteronism with normal potassium levels as part of a more complex syndrome due to a polyglandular endocrine adenomatosis.

CASE REPORT

P.B., a 28-year-old white female, was originally referred to one of us in 1963 because of intractable duodenal ulcer. Studies at that time were essentially negative, and a gastrointestinal x-ray series showed an active duodenal ulcer. She was treated with standard therapy and improved. Her blood pressure was noted to be 120/80.

In May 1964 the patient developed right costovertebral angle pain with thirst and dizziness. Blood pressure was 150/90, fluctuating to 164/100. Symptoms were not of sufficient magnitude to warrant further investigation at that time, but in 1965 the pain became worse and she developed intermittent hyperacusia, brief sweating spells, occasional fine tremors, polyuria, and polydipsia. She complained of intermittent epigastric distress, but her symptoms were never characteristic of an ulcer attack, although she was maintained on intermittent antacids with relief. During this period she continued with her work as a cosmetic saleslady, and symptoms were not such as to incapacitate her. In November 1965 she was admitted to the hospital for investigation of her hypertension.

Patient had a history of renal lithiasis in 1962 associated with an upper urinary tract infection. Symptoms had responded to therapy at that time.

Family history revealed that her father had similar symptoms of sweating, tremors, and polyuria, and hypertension. An uncle had had hyperthyroidism.

Physical examination revealed a well developed, well nourished white female with minimal complaints of right flank distress. Her blood pressure was 145/90 and there were no other abnormal findings. Laboratory studies are summarized in Table 1.

Transabdominal exploration of the adrenal glands was performed. Tissue was removed from both the left and right adrenals. Pathological examination was as follows:

Gross Description. Specimen consists of segment of right adrenal gland measuring 7x3.5x1.5 cm. Also present is a small fragment of left adrenal tissue designated partial left adrenalectomy. In section of the right portion, a small yellowish-brown, cortical nodule is found consistent with adenoma.

Microscopic Examination. Sections of the right adrenal reveal at least two cortical adenomata structurally consistent with primary hyperaldosteronism. The sections of the adrenal gland itself bilaterally reveal some abnormality in the appearance of the zona glomerulosa with vacuolization, interstitial fibrosis, inflammatory infiltration, and occasional foci of pseudotubular arrangement. It



TABLE I
LABORATORY STUDIES

X-RAYS			
Chest, lumbodorsal spine, skull			
Intravenous excretory urogram			
EKG			
LABORATORY EXAMINATIONS			
URINE:			
Specific gravity	1.005-1.007		
pH	Acid on all specimens		
Sulkowitch test	12/6/65 — trace		
	12/15/65 — 2+		
Sugar	Negative		
17-ketosteroids	46.3 mg.	Normal	
	33.9 mg.	5-15 mg.	
	26.0 mg.		
17-hydroxycorticosteroids	3.0 mg.	Normal	
	2.1 mg.	5-15 mg.	
Catecholamine	375 mcg.	Normal	
	165 mcg.	15-140 mcg./24hr.	
Urine culture and sensitivity	Negative		
Total urine output	5,000 to above 10,000 ml./24hr.		
	With restricted fluids — 3,100 ml.		
BLOOD:			
Hb	12.2 gm %		
C.B.C.	Within normal limit		
	Fasting	85	93
Glucose tolerance test: Blood:	60 min.	152 mg.	193 mg.
	120 min.	50 mg.	35 mg.
	180 min.	61 mg.	100 mg.
	Urine:	120 min.	Positive
		180 min.	
Triiodothyronine red cell uptake	14.25%	Normal	
		10-17%	
Urea nitrogen	5 mg.		
	8 mg.		
	10 mg.		
Plasma Protein Electrophoresis	Within normal limit		
Sodium	152 mg.	m Eq./L.	
Potassium	3.6	m Eq./L.	
	4.6	m Eq./L.	
Serum calcium	10 mg.	m Eq./L.	
Phosphorus	3.2 mg.	m Eq./L.	
Chlorides	109 mg./L.	m Eq./L.	
CO ₂	23	m Eq./L.	
pH of blood	7.42		
Aldosterone	21.6 mcg.	Normal	
		2-15 mcg.	
Renin Activity		Normal Values	
/1/66	40 ng.		
Pre-operative	8.0 ng.	483 ± 39 ng.	
8 days post-op.	10.0 ng.		
64 days post-op. (normal salt intake)	27.0 ng.		
71 days post.op. (salt depleted)	37.0 ng.		
Histamine test, regitine test, Hickey-Hare test, pitressin test	Negative		

may be implied that these changes are secondary to a compensatory phenomenon resulting from the overproduction of aldosterone by the adenomata.

Pathological Diagnosis.

1. Right adrenalectomy with multiple cortical adenomata.
2. Essentially negative left adrenal biopsy.
3. Changes consistent with primary hyperaldosteronism.

DISCUSSION

This patient, who presented with a labile systemic arterial hypertension with a normal sodium in-

take and on no diuretic therapy, was found to have an elevated 24-hour urinary aldosterone excretion. These findings together with an extremely low renin activity were consistent with a diagnosis of primary aldosteronism.

This patient, however, also had had an active duodenal ulcer for several years with associated hypertrophic gastritis and hypoglycemic crises. Urinary 17-ketosteroids and urinary catecholamines were elevated. Glucose tolerance test subsequently was abnormal, demonstrating hypoglycemia. Renin

(Continued on next page)

activity after the removal of the adrenal tumors showed an insignificant increase, suggesting that the secreting tumor persisted at another undiscovered site.

These findings suggest the presence of a polyglandular endocrine adenomatosis presenting as aldosteronism. Gross inspection of the pancreas and ovaries was normal.

Other interesting features of this case were the familial incidence of hypertension (her father), her remarkable emotional instability, and marked polyuria with a history of renal lithiasis.

Frame⁵ has classified the polyendocrine syndromes as follows: 1. Multiple endocrine adenomatous complex or M.E.A.; 2. Zollinger-Ellison syndrome; 3. familial hyperparathyroidism; 4. hyperparathyroidism, hyperthyroidism, and thyroid cancer; 5. familial pheochromocytoma; 6. Cushing's disease and hyperparathyroidism; 7. carcinoid syndrome in non-carcinoid malignancies; and 8. multiple hormone production in single non-endocrine malignancies.

We feel that our patient falls in the category of M.E.A. and demonstrates the difficulty of complete surgical cure in these cases as well as the unusual clinical manifestations.

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PERMANENT TRACHEOSTOMY

(Concluded from Page 335)

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THE ANGELL WILL CASE

*Will Broken on Basis of Psychiatric Testimony
Indicating Insanity of Testator*

ISAAC RAY, M.D.

The following is a condensed version of a paper appearing in the *American Journal of Insanity* (Utica, N.Y.) 20:145, (Oct.) 1863. Isaac Ray, M.D., (1807-1881) was the first Superintendent of Butler Hospital for the Insane in Providence, R.I., serving from 1846 to 1867. He was an authority on medical jurisprudence and a pioneer forensic psychiatrist. He served as President of the Rhode Island Medical Society (1856-1858), and of the Association of Medical Superintendents of American Institutions for the Insane. A graduate of the Harvard Medical School in 1827, he received an honorary M.D. from Brown University in 1879.

The case here reported is a classical and early example of the use of psychiatric testimony to break a will.

The Editor.

To the medical jurist, no class of cases can be more interesting than that of wills involving questions of mental condition. In the litigation of a will, a wider range of inquiry is opened, a larger variety of relations is exposed, than is permitted or required in that of a crime or a contract. The investigation may extend over a life-time, and be pushed into the inmost recesses of the inner life. In no class of cases is there more needed a familiar acquaintance with the operations of the mind, sound as well as unsound, in order to reconcile seeming discrepancies of testimony, an extensive observation, to show the full significance of many a trait, and the tact, springing from long experience and sagacity, that can enable one to appreciate the nicer affections of mental competence that result from cerebral disturbance. In the following account of a will case recently tried in this city, the psychologist will see a curious exhibition of mental obliquities, extending over the greater part of a long life, the jurist will see some old principles under new phases, and the general reader will be struck by many an incident which give the narrative an air of the strange and marvellous.

In the year 1780, Joseph Angell was married to Desire Hopkins, daughter of that Commodore Hopkins who, in the revolutionary War, dealt the first

successful blow at the enemy on the water. The match was not a happy one. The husband proved improvident and dissipated, left his family some seven or eight years after the marriage, and went to Maryland, where he engaged in teaching school. Their only child was a daughter, Eliza, the testatrix in this case, born in 1783. In 1790, the deserted wife, receiving neither aid nor comfort from her spouse, obtained a divorce, and in 1793 married Samuel Leonard, a prosperous widower, residing in Taunton, Mass., with three children by a former wife. By the last marriage there were two children, both of whom survived to adult age, Samuel and John B. The advent of the bride and her child into the family of her second husband was not followed by the utmost harmony, and some hard feelings existed between the Angells and Leonards from the beginning to the end. In 1807, Mr. L. died, and in 1820 the widow with her own children moved back to this city. Two years afterwards, they came in possession of the Commodore Hopkins estate in North Providence, and there they resided ever after. In 1834, Samuel died; in 1843, the mother; in March, 1853, John; and on the 12th of October, 1860, the testatrix.

In 1846, both John and his sister made their wills, in which they bequeathed their property to each other. After the death of John, she was in possession of two considerable estates, one in Taunton, derived from her step-father, consisting of stores and some land eligible for building in the outskirts of the town; and one in North Providence, consisting of the old homestead, a few tenements, a mill-privilege, and some 250 acres of unoccupied land, mostly suitable for building lots. The former estate was taxed, when her will was made, at \$30,000, and the latter at \$75,000.

On the 25th of April, 1854, this lady executed her will, the validity of which is now contested. In this will she gives an annuity of \$100 to one of her poor relations who died before her; an annuity of \$600 to a cousin residing in South Carolina, and when she dies, an annuity of \$300 to each of her daughters while they remain single; some gold watches which had belonged to her step-father and a few other personal effects, such as pistols, rings, sleeve-buttons to his grandchildren; and directs her

(Continued on next page)

executor to appropriate to each of her step-father's two sons as much as he may deem necessary to make them comfortable, the amount not to exceed \$40 per month. In no other particular does she recognize the existence of relations. She gives to the town of North Providence a lot for a townhouse, with certain conditions which the town did not choose to accept. With these exceptions, all her property is given in trust to Rev. Dr. Wayland, late President of Brown University, Rev. Dr. Caswell, Professor in the same, and Rev. Dr. Granger, then minister of the First Baptist Church, and their successors to be devoted by them to the erection of two Baptist Churches with parsonages attached, and the support of a minister in each. One is to be on her estate in Taunton, the other on her estate in North Providence, both "to be built of stone of suitable dimensions," in "a plain and substantial manner." In order to build and support the former church, she devotes one of the Taunton estates, called the Barney farm, to be let, mortgaged or sold as the Trustees may deem best. To build and support the latter, she devotes all the rest of her property after all charges upon the estate are paid. If the "rents, profits and proceeds" thereof "are not sufficient within a reasonable time to pay for the building of said last-mentioned church and parsonage," then the Trustees are directed to sell as much of her Taunton estate as may be necessary for this purpose. In no event, however, is any of the North Providence property to be sold. These objects being accomplished, the Trustees are directed to divide the residue of the "rents, income and profits" into three equal parts, one to be appropriated by them to "the support and education of the children, male and female, of orthodox Baptist ministers," to "the support and education of the children, male and female, of orthodox Baptist missionaries," and the other to "the support and education of young men who are candidates for and intend to become ministers of the orthodox Baptist Church." The Trustees are to appoint their successors, and to appropriate from the funds of the estate "a reasonable compensation for their services."

On the 9th of July, 1855, she executed a codicil in which she bequeaths to the American Colonization Society "all estates and property of every kind and nature whatsoever, which may come to me directly by descent or devise from my father, Joseph Angell deceased, whether the same be situated in the State of Virginia or elsewhere."

WILL ADMITTED TO PROBATE

This will was admitted to probate by the Probate Court, from which the heirs-in-law appealed to the Supreme Judicial Court. The case was tried in April, 1862, but the jury did not agree. The second trial in November next was followed by the same

result; but on the third, in May of the present year, the jury returned a verdict setting aside the will on the ground of insanity. The trials were all of unprecedented length, the longest occupying five weeks. In the matter of evidence, the trials were but a repetition of each other — certainly in every essential point — and therefore, in making up this account, there seemed to be no impropriety in using the evidence without referring precisely to the trial in which it appeared.

The first trial was before Chief Justice Ames; the second, before Mr. Justice Brayton; the last, before Mr. Justice Bullock. Counsel for the appellants, Blake, Mathewson, B. N. Lapham, C. M. Smith; for the appellees, Curry, C.I. Reed, of Taunton, W. H. Potter.

The testimony of the appellants disclosed many indications of mental disorder, the most prominent of which was the belief, without proof and against proof, that her father, who died within a few years after he left Providence having married a widow supposed to be wealthy a few months before his death, had left her a large estate but of which her uncles, then living in Baltimore, had somehow got possession and transmitted to their children. This belief she entertained during at least the last twenty years of her life. Against the children of these uncles — persons of the highest respectability, whom she was in the habit of meeting frequently, and some of them familiarly — she made it a theme of bitter reproach, that they were living in ease and luxury on property that had been stolen from her. Whenever one of them showed a sign of prosperity, whether it was in building a block of stores, in putting children to school, or furnishing a house, she declared it was derived from her property. When one of them went South in the way of business, she declared it was for the purpose of visiting those plantations which rightfully belonged to her. All this she believed without a tittle of proof that her father left a single dollar behind him for her or anybody else. For a part of the time, at least, she had abundant proof that he died poor and that the widow whom he married was almost as poor as he.

She also believed that her relations hated her and had attempted in various ways to annoy and wrong her; and this belief she expressed to visitors, to servants, to chance acquaintances, and to her relations themselves, sometimes talking about it for hours together. . . .

The idea of being poisoned seems to have been very familiar to her mind. She often stated that when they lived in Taunton the children of her step-father by his first wife poisoned the well and the coffee and placed on the window-sill and other

(Continued on Page 343)



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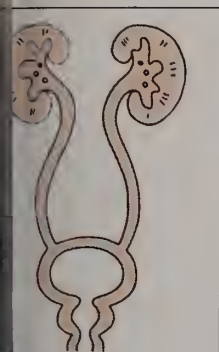
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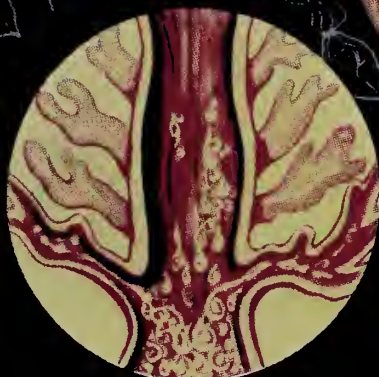
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Flagyl[®].....

brand of

metronidazole

Seminal vesicles



Prostate gland



Bladder



destroys trichomonads Wherever they Are

Flagyl seeks out the sites where trichomonads hide. Only a systemic agent can. Flagyl does, selectively and effectively.

Flagyl destroys trichomonads in the inner crypts, glands and cavities of the genitourinary tract in both women and men. Consequently, Flagyl is capable not only of curing trichomoniasis in women but also of preventing reinfection.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced up to 100 per cent cure in large series of patients.

When the diagnosis of trichomoniasis is positive, Flagyl is positive.

Dosage and Administration—In women: one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men in whom trichomonads have been demonstrated: one 250-mg. oral tablet twice daily for ten days.

Contraindications—Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution—Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects—Infrequent and minor side effects include nausea, metallic taste, furry tongue and headache. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness of an extremity, joint pains, confusion, irritability, weakness, flushing, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Did Dorothy Larson show you her ankles in private? Now she shows them in public.

Your office examination would have confirmed that Mrs. Larson was up to her knees in edema. Her heart was beginning to fail. And her ankles had disappeared under an inch of salty water.

Along with digitalis, you might have prescribed Hygroton. To get rid of the edema. And to keep it from coming back. And you prescribe Hygroton the same way you usually prescribe digitalis: just once a day.

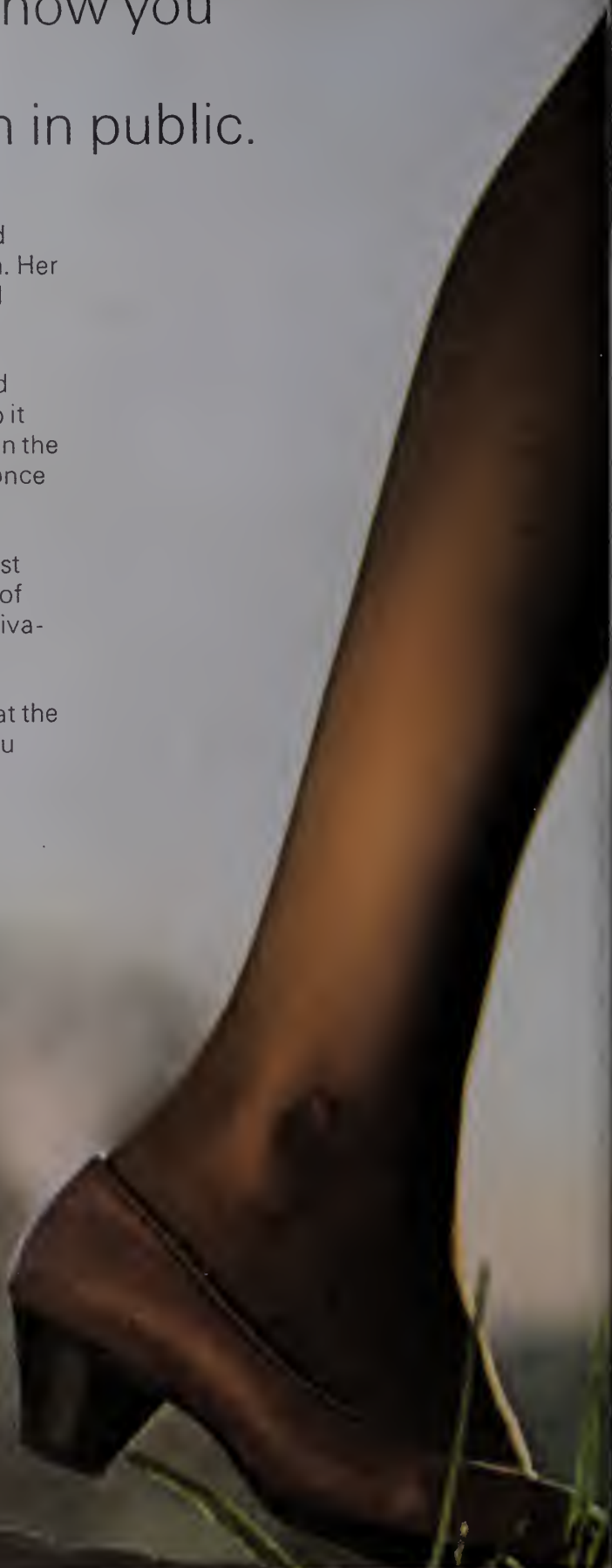
Tablet for tablet, Hygroton is just about the most effective diuretic going. And it costs a fraction of what Mrs. Larson would have to spend for equivalent therapy with short-acting diuretics.

In fact, Hygroton is an awfully nice way to treat the Mrs. Larsons in your practice. Just tell them you can get their ankles back at half price.

Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihyper-

tensive agents by at least one-half. Discontinue if BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur. Exercise special care in cirrhosis or severe ischemic heart





Hygroton[®]

chlorthalidone

patients receiving corticosteroids, ACTH, or digitalis restriction is not recommended.
Effects: Dizziness, weakness, nausea, vomiting, hypokalemia, hyperuricemia, headache, muscle cramps,

postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg) with breakfast daily or every other day.

Availability: Tablets of 100 mg.

6524-V(B)

For full details, see prescribing information.

...so you might say
Hygroton
is good public relations
for Mrs. Larson

Because it gets her *out* in public in the first place.
At 43, Mrs. Larson worries about appearances and
swollen ankles don't help.

But Hygroton's cosmetic effect is only half the
story. Hygroton and digitalis therapy helps her get
back in the swing of things. Gives her a second
wind. Gets rid of the extra pillow she needed for a
good night's sleep. Now she even likes to take
walks. Just for the fun of it!

When her troubles began, Mrs. Larson thought they
were the signs of the change of life. It's a change
all right, but one you can treat. And you can count
on Hygroton to help keep her in public instead of
in the hospital.

See preceding pages for brief summary
of prescribing information.

Geigy



Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York



THE ANGELL WILL CASE

(Continued from Page 342)

parts of the house a white powder, which she believed to be poison. She also charged them with attempting to get rid of their young half-brothers (children of her mother) by offering them hot punch in which poison was put. John, she said, did not drink it, but Sam did, was very ill and died in consequence some twenty-five years afterwards. Among the witnesses were many relatives; and all concurred in the statement that she never ate or drank in the houses of her relatives and that, when she accompanied them on excursions, she would never partake of the refreshments they carried with them. The reason she gave for it was that she was afraid of being poisoned. The same apprehensions were manifested in regard to her house-servant and the people whom she employed to manage her place. She refused to eat some sweet corn which one of the latter sent her, saying she would eat nothing he might send in, adding that she once drank some cider he sent in and was made sick by it. She suspected, if she did not really believe, that her well had been poisoned by the Quaker preacher then living on the place. She was in the habit, at one time, of locking up her coffeepot over night for fear of her servants poisoning it at the instigation of her relatives. The same relative who frightened her by expressing a desire to be rich, she suspected of poisoning the food. A woman who had been employed by her as a servant for a little while subsequently came to draw water from her well. She imbibed the notion that this woman came for the purpose of poisoning the water; and so strong was this belief that within twenty hours of her death, when prostrated by a shock of paralysis and unable to articulate, she wrote on a slate, "woman came to draw water," alluding to a statement she had previously made to the witness that Mrs. P. had come to draw water and had poisoned the well.

Several instances of that kind of fancied insult so characteristic of the insane appeared in evidence.

PSYCHOLOGICAL HISTORY

The psychological history of this lady is easily read by the light of the evidence; and it may be worth our while to notice some of the prominent incidents of that mental movement which, beginning in the deepest emotions of childhood, fostered by the peculiar circumstances of her lot and determined, in a great degree, probably, by hereditary tendencies to disease, ended finally in delusion and disorder. It was the work of years, it is true, and not obvious to the casual observer; but it was none the less real or serious. . . .

During the latter years of her life, it is obvious

that the mental infirmity had greatly extended its influence. The fear of being poisoned had steadily increased, until the circle of the suspected embraced many of her kinsfolk and most of her servants. To this was added the fear of foes from without as well as foes within. Doors and windows were kept fastened day and night, and she retired to rest in a bed surrounded by fire-arms. The suspicion and distrust of her earlier years were converted at last into utter disbelief of human honesty. All, from the kind old Baptist deacon who managed her charities to the honest old Quaker who managed her farm; from the cherished friend of her brother, unceasing in his offices of kindness towards her, to the humble cousin who was ever her willing drudge — all were, in her eyes, cheats, thieves, and liars. To the broadest moral distinctions she became insensible, charging with fraud and malice persons whose company and assistance she courted and putting into the hands of the man who was to watch her premises the instruments of death, with directions to use them upon the first one who came along. The management of her property now betrays a lack of that mental vigor, and the style of her housekeeping an insensibility to little conveniences and proprieties, which mark the progress of her malady no less clearly than other more demonstrative traits; and thus, year after year, for the greater portion of her life, she was brought more and more under the influence of disease though seldom, if ever, deprived entirely of self-control or all sense of the fitness of things. To say that she was, therefore not insane is merely to say that she was not a raving maniac nor a stupid clod, devoid of all sense and reason.

It may be worth our while to observe that this case involves some questions, touching the effect of mental disease on the testamentary capacity, that are not yet definitely settled. In cases where a will has been disputed on the ground of insanity, the kind of mental impairment alleged has generally been that which accompanies congenital imbecility, paralysis, acute disease of some bodily organ, the decay of old age, intoxication. It consists of enfeeblement rather than perversion and affects the memory and judgment rather than the opinions and sentiments. These cases involved simply a question of capacity, and courts were always seeking some standard by which the testamentary capacity could be measured. In the case of imbeciles, the ability to count ten, to tell the day of the week, or measure a yard of cloth was considered once evidence of a disposing mind; and, though the standard was raised in later times, it was still an arbitrary one, having no necessary relation to the thing compared with it. In other cases of mental enfeeblement, courts have said that the testator should possess

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mind sufficient to transact the common business of life or be capable of making a contract or doing any other binding act. And this was the common doctrine, until it was discovered, almost within our own generation, that some wills require a stronger understanding and a wider comprehension than some contracts, and *vice versa*. This led to what may now be considered a settled principle, viz., that the testamentary capacity must be estimated in reference to the circumstances of the particular act itself. Thus, a will disposing of a large amount of property to various persons for various purposes and under various conditions requires a larger capacity than one devising a small property to the only two or three relatives the testator may have or than a contract marked by few and simple conditions.

No sooner was this principle recognized as the settled law, than it was found too narrow to cover all the ground which the subject presents. A class of cases began to make their appearance in which the testator, while possessing many of the highest powers and the ordinary traits of a sane mind, transacting business correctly, mingling in society without exciting surprise, and discharging creditably the duties of a good citizen, was bereft of reason in relation to certain subjects, believing notions utterly impossible in the nature of things or the circumstances of the case. . . .

The notion prevails, to some extent, that experts on the question of insanity have been allowed peculiar privileges; and counsel may often be heard contending that they shall be examined like experts on other matters. "In questions of surgery, or of poisoning, or of unseaworthiness of vessels," they say, "we call an expert who may not have heard a syllable of the evidence, and obtain his opinion on whatever point we choose to inquire about." This supposed diversity of practice is more apparent than real. In most cases, the essential facts are comparatively few and can be readily recapitulated by the counsel, who scarcely troubles himself to state them hypothetically. For instance, a person laboring under some disease receives a blow, and shortly after dies. The offender is put upon trial; and the essential question is, whether death was caused by the disease or the blow. Witnesses described the symptoms of the disease, the force and direction of the blow, the changes that followed, and the appearances after death. An expert is now called in; the testimony is recapitulated by counsel, whether under the forms of the indicative or subjunctive mood, is immaterial, and he is asked his opinion, on this state of facts, respecting the question at issue. The facts disclosed by the testimony are fairly placed before him, and to seek his opinion upon a set of imaginary facts would be regarded as a piece of impertinent trifling. Now, the only dif-

ference, as it regards the examination of the expert between such a case and a will-case involving a question of mental competency, is that in one the evidence is brief, the facts are few and tangible, and easily repeated; while in the latter, the evidence might fill a volume, much of it, perhaps, having no bearing on the essential point. Out of this mass of relevant and irrelevant facts the counsel are unable to select such as are suitable for the basis of an opinion, because none but an expert can form a proper distinction. In both cases, the purpose is to present to the expert all the essential facts. In the one, they are stated to him by counsel; in the other, he hears them himself from the witnesses. It needs a subtlety of discernment not vouchsafed to everyone to perceive any material difference between these two methods.

It is deeply to be regretted that so simple a method of obtaining the opinion of the expert, as that of allowing him to *suppose* the testimony to be true, should be discarded in favor of the circuitous and awkward contrivance of a hypothetical case in regard to the exact conditions and elements of which no two courts have ever agreed. With some opportunities of observation I have not yet met with a single instance in which a form of putting the question to the expert under the new rule, adopted by one court, has been subsequently allowed by any other court. This is a significant fact. Would that court would heed the lesson which it teaches.

In the charges of the courts in this case, there was necessarily little of much interest to the medico-legal reader. In all the trials, the court affirmed the doctrine that partial insanity might or might not vitiate a will and directly or by implication maintained that the will, to be defeated on the ground of insanity, must be the offspring of delusion. It is enough to say that, although this latter rule may be a very proper one under some circumstances, yet in its application to the present case, it would, in all justice, require an important modification. Whether this will was or was not the offspring of insanity or, in other words, whether it would or would not have been just the will which the testatrix would have made had she never been insane, we have no means of knowing. What we do know is that, entertaining the belief she did respecting her heirs-at-law, she would most certainly leave them nothing. The proper question is, whether such a belief would not necessarily vitiate any will whereby her heirs were completely disinherited. If there were any doubt as to the existence of delusion, then the character of the will might remove that doubt; but delusion on this vital point — the intentions, conduct and feelings of the heirs — being established, the will is invalid, though pre-eminently "a rational act rationally performed."

PROGRESS IN AIR POLLUTION

Rhode Island Governor John H. Chafee has made an excellent start in combatting air pollution by his selection of Austin Daley as the new director of air pollution control in Rhode Island. Daley was the first air pollution engineer in the City of Providence in 1949-1956. Among his accomplishments at that time was the sponsoring of a municipal ordinance forbidding the use of hand fired bituminous coal in the City of Providence. The shoveling of soft coal into a furnace produces an extraordinary amount of smoke. However, the use of mechanical regulators to feed coal into furnaces produces controlled burning and relatively little smoke. This ordinance appears to have been the first act of its kind against air pollution in the United States and possibly in the world. Recently in Los Angeles, over ten years after Daley's ordinance, a law was passed forbidding the use of fossil fuel of any type for any new industrial endeavor. Thus, Daley is one of the country's pioneers in the field of air pollution. His recognition as an expert in this field extends to the United States Congress, where he testified as an expert witness before com-

mittees of both the United States Senate and the House of Representatives.

The Governor also appointed an Air Pollution Advisory Committee, composed of five distinguished members including a physician, a dentist, an ex-mayor, and two industrialists. The inclusion of a physician in this committee was a wise decision since air pollution directly affects the health of the population. The physician chosen has an outstanding record of interest and accomplishments in the field of air pollution.

Daley and the Governor's Advisory Committee have had frequent meetings and are in the process of establishing monitoring stations throughout the State. After a thorough survey the data from these monitoring stations will be evaluated, and appropriate counter measures will be recommended.

Organized medicine in the Metropolitan area was in the forefront of agitation for effective air pollution in the nineteen thirties and forties. We now look with satisfaction upon this wider extension of effective control.

FUTURE GOALS FOR PHYSICIANS SERVICE AND BLUE CROSS

Speaking before a recent meeting of the Providence Medical Association, Jerome Pollack, associate dean for medical care planning at the Harvard Medical School and professor of medical economics there, warned that the public is demanding more comprehensive medical coverage. He would prefer that the private sector, namely Blue Cross and Blue Shield, meet the challenge. He feels confident that, if voluntary insurance plans do not find a way of broadening coverage, the Federal Government will step into the breach, and very quickly. There is not, he believes, much time to lose. On another occasion, speaking before the Rhode Island legislative committee studying hospital room rates, Pollack called for a broadening of health insurance benefits to bring them up to the level of federal Medicare.

The reluctance of the Blue plans in Rhode Island and elsewhere to enter the field of broader medical coverage stems in part from understandably conservative fiscal and actuarial policies. There is,

however, another reason equally understandable to explain why the plans have not rushed into new fields. Blue Cross was established to pay hospital bills and Physicians Service (Blue Shield) to pay doctors' bills. The government of the respective plans is still largely committed and oriented to these goals.

Through joint underwriting major medical coverage and special riders have been available, but for group subscribers only. These supplementary benefits are excellent, but expensive to provide. If, however, some third plan (with potentialities of entering the basic coverage field as well) or the Federal Government is not to take over, joint underwriting for expanded coverage is the logical and essential method of providing this coverage. The limited experience already accumulated in major medical and extended benefits underwriting, as well as that in federal Medicare, should provide a valuable basis and the necessary actuarial background for the local Blue plans.

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The needs cover a wide range, such as ambulatory care and diagnostic study, drugs, appliances, nursing home and extended care costs, ambulance service, and home care, to name the most obvious. Rhode Island Blue Cross and Rhode Island Medical Society Physicians Service have had some experience in all of these elements through presently available plans. These provisions, however, are not by a great distance available to all subscribers equally. The Board of Directors of Physicians Service, on the recommendation of its Pro-

fessional Advisory Committee, recently requested the joint Administration of Blue Cross and Blue Shield to study the feasibility of drug coverage for all on a joint underwriting basis.

We believe that the medical profession is now ready to explore the field of broad coverage, and we are told that this is equally true of the hospital authorities. We urge prompt and effective action. Perhaps this is the best way to limit the extension of federal intervention.

THE VANISHING GP

A recent survey by the *Boston Globe* revealed the surprising fact that not a single member of the present graduating classes of Boston's three medical schools — Harvard, Tufts, and Boston University — plans to enter general practice. Every one of the 332 fourth year students in those schools will enter training for specialty practice upon graduating in June. The *Globe's* medical reporter properly looks upon this as startling evidence that the family doctor is a disappearing American breed, particularly in view of the fact that two of the schools, Tufts and B.U., have long had national reputations for training general practitioners. The absence of GP candidates among this group of senior medical students came to light when the editors of the *Globe* sought to explore the motivations of a young doctor about to enter general practice.

Surveys show that only 15 per cent of all doctors are currently engaged in general practice, contrasted with over 50 per cent prior to World War II.

By 1970 it is expected that the number will be down to 10 per cent.

There is very little in the current medical educational curriculum to interest or stimulate a budding physician in the problems of family practice. The medical teacher of today, primarily a medical scientist, teaches what he knows best and thus creates new doctors in his own image. The young candidate fears that he will be downgrading himself if he enters general practice, particularly if he goes to small town.

He hears and reads disparaging views about independent individual practice. The wave of the future, he is told, is in group practice or academic medicine. Nothing in his experience or in his educational environment suggests an opposing view. In fact, discouragement is everywhere.

Something important and worthwhile is disappearing from the American medical scene. We do not feel that we have an answer.

NEED FOR STANDARD LEGISLATION GOVERNING MOTORCYCLE OPERATION

As more and more motorcycles crowd the nation's streets and highways the number of injuries and deaths related to their use has increased rapidly. The 1,580 motorcycle rider deaths in the U.S. in 1965 represented a 41.3 per cent increase over 1964. According to the U.S. Public Health Service the death rate for motorcycle accidents in the U.S. based on the number in use is double that for automobiles and other motor vehicles. Furthermore, the number of motorcycles in use increased a surprising 71 per cent between 1960 and 1964 and another 31 per cent between 1964 and 1965. In Rhode Island the increase between 1960 and 1965 was 187 per cent. Legislation governing the safe operation of the motorcycle has not kept pace with the problem.

To meet this challenge, motor vehicle authorities from eight states in the Midwest met in Indianapolis in December 1966 to participate in a motorcycle safety legislation workshop. State licensing

authorities, police chiefs, representatives of the motorcycle industry, physicians, and representatives of the AMA Committee on the Medical Aspects of Auto Safety met to develop recommendations for possible legislation on motor cycle operation, licensing, rules of the road, and equipment.

The AMA Committee on the Medical Aspects of Auto Safety currently is making an extensive study of the motorcycle problem in the U.S. The workshop recommendations were aimed at achieving some degree of uniformity in the state laws on motorcycles because of the volume of interstate travel. Among the recommendations were the following:

1. Motorcycle drivers should be licensed for driving motorcycles. An automobile driver's license should not be the sole qualification for driving a motorcycle.

2. All motorcyclists should wear helmets which meet the standards recommended by the U.S.A.

Standards Institute. The helmet is considered one of the most important safety devices, since most victims in motorcycle accidents sustain head injuries.

3. Only one passenger, in addition to the driver, should be allowed to ride on a motorcycle, and then only if the motorcycle is properly equipped to carry a passenger.

4. There should be no more than two motorcycles operating side by side in a single traffic lane.

5. Rules governing automobile passing should apply to motorcycles.

6. Motorcyclists should drive with lights on at all times. (This was one of the more controversial topics considered at the workshop.)

7. A motorcyclist is entitled to the full use of a traffic lane. Auto drivers should respect his right, and not force any motorcyclist off the road.

8. No motorcyclist under the age of 18 should be given a license unless he has successfully passed an accredited automobile driver's education course, obtained a regular auto driver's license, and taken a motorcycle driving test. In no case should a license be issued to anyone under 16 years of age.

Legislation requiring examination for a motorcycle driver's license and the use of helmets was recently passed by the Rhode Island General Assembly. This is a highly desirable reform. We urge that serious consideration be given to all of the above regulations.

A CHIP OF THE OLD BLOCK:

REVOLUTION IN ELECTRONICS

The announcement in 1948 by the Bell Telephone Laboratories of the first practical transistors represented the first big step toward electronic miniaturization. Over a period of a generation the large cabinet radio of fond memory had shrunk to the size of a candy box as the essential vacuum tubes gradually diminished in size. The first transistors, crystals of the semi-conductors germanium and silicon no larger than a pinhead, then took over the function of amplification. Later descendants have assumed practically all of the functions of vacuum tubes in electronic circuitry. Besides their smaller size, transistors need far less power than vacuum tubes for operation — 6-12 volts as compared to 100 or more for a tube. Thus, smaller batteries are possible, permitting further saving of space. Because they do not break or wear out, transistors can be permanently mounted in a circuit which, theoretically, will perform perfectly forever.

The next development in miniaturization was the emergence of printed circuits, eliminating wiring. Pathways of conducting material between transistors and other components is laid down (printed) on a nonconducting material.

The most recent, or third step in electronic evolution is the integrated circuit, or "chip," so called because of its tiny size. In essence the integrated circuit is an ultraminiature circuit, in which not only the connections, but the components as well, are imprints. In one such process slices of silicon the size of a 25 cent piece are the raw stock. By a process of microphotoengraving several hundred identical circuits are printed on this single piece of silicon semiconductor. Microscopically small channels are cut, and other materials in nearly invisible amounts are added layer by layer and pattern by pattern until complete infinitesimal transistors and

other components are fashioned, each in place and connected together within the space of a few hundredths of an inch.

The individual chip circuits are then cut out of the basic silicon form, and the chips are in turn mounted on a wafer the size of a postage stamp, making them more manageable. These become the building blocks for larger electronic units such as computers. In the early phases, a chip five one-hundredths of a square in area could hold as many as 22 transistors in addition to other necessary components, such as diodes, capacitors, and resistors. A more recent development called large scale integration (LSI) is basically an extension of integrated circuit technology. A single chip may now carry as many as 50 circuits, thus cutting down on the number of external connections between chips.

LSI, it is expected, will have a further profound impact on electronic technology by permitting further miniaturization, higher speeds of operation, greater reliability, and lower cost. It could mean the placing of a complete computer or communications sub-system on a single chip of semiconductive material the size of a letter "o" on the typewriter.

The importance of these developments in computer, space, missile, communications, and military technology is obvious. Their potentials in medicine are great, but less apparent immediately. The decreasing size of hearing aids is an already useful result of miniaturization. Possible uses in medical research are legion, as tiny probes and computers can be put anywhere in the body. It is conceivable, for example, that an audioamplifier chip could be embedded in the ear structure itself, operated by body heat or miniature electrical sources. Capsules could report on acidity and pressures in the gastro-

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intestinal tract, or continuous readings of cardiac and respiratory function could be obtained by appropriate sensors. Control mechanisms for electronically operated limbs have been envisioned. These

new devices are indeed a challenge to ingenuity. It is almost a foregone conclusion that chips and LSI's will become an important part of the armamentarium of clinical and investigative medicine.

NEW PROBLEMS IN THE MAKING OF A SURGEON

The rapid decline in numbers of charity ward patients in many hospitals has for some time created serious problems for those hospitals which have residency training programs in general surgery and the surgical specialties. The advent of Kerr-Mills and more recently of Titles 18 and 19 of the federal Medicare law presages the ultimate disappearance of the ward service patient. The training of the young surgeon requires patients upon whom he can operate with decreasing supervision and increasing responsibility. In the end, he must be in sole charge of the operating room and of the pre- and postoperative care. Supervision is always nearby, but becomes progressively tenuous.

The seriousness of the problem of providing teaching cases is emphasized by two recent meetings, both in New York City, devoted to this problem — one a panel discussion at a regional meeting of the American College of Surgeons, and the other a meeting of the Allen O. Whipple Surgical Society at Columbia University. In addition, a number of editorials on the subject have appeared in surgical journals recently.

An analysis of the many aspects of the difficult problem and of suggestions for its solution can be left to the surgical preceptors and the hospital staffs which must find a way. A few generalities, however, are in order. It is clear that "private," paying, or paid-for patients, who according to current modes of thought are entitled to free choice of physician and surgeon, will have to be made available as teaching cases for the surgical training programs.

Recently published Medicare regulations suggest a way in which this can be done. The pertinent provisions allow payment of a fee to the supervising surgeon, provided he is physically available if needed. The disposition of the monies, after payment, becomes a personal matter between the surgeon and the rest of the staff. Partnership, staff, or group arrangements may permit the surgeon to keep the fee, put it in a partnership pool, or allow it to be used for educational purposes within the hospital.

This problem, to a limited extent, has for some time been handled admirably in Rhode Island in a manner which, in some respects, could act as a model for this type of operation. Rhode Island Medical Society Physicians Service has maintained an enlightened attitude precisely to preserve the teaching services. Partnership arrangements have made the policy workable. The ground rules, in fact, have been almost precisely those promulgated in the new Medicare regulations. Only the physical presence of the supervising surgeon in the hospital has been required. His judgement is relied upon as to the level of responsibility which may properly be delegated to the individual resident. The use of the funds has varied from hospital to hospital and from time to time; but there is precedent in Rhode Island for allotment of the fee to the surgeon, for pro rata distribution, and for use for educational purposes. Surgical teaching services must be preserved. Although there will be difficulties, experience in Rhode Island indicates that this is a quite feasible goal.

SODIUM ETHACRYNATE IN ACUTE HEART FAILURE

The treatment of acute left ventricular failure with phlebotomy or rotating tourniquets; rapid digitalization; morphine; oxygen; and diuretics is the regimen of treatment, learned early in one's clinical years, for a dramatic situation. A valuable adjunct to this treatment appears to have been added.

Sodium ethacrynate is now available for intravenous use. It is alleged by reputable investigators to be so rapid in its onset of action and so effective in the magnitude of the immediate diuresis that its use is tantamount to a phlebotomy or rotating tourniquets.

Since the treatment of acute left ventricular failure is a life-saving procedure, it behooves all physicians who may encounter this medical emergency

to acquaint themselves with this new drug, and to add it to their emergency bag. Sodium ethacrynate and a similarly acting drug, furosemide, have been released within the past year for general use. They both have the unique property of acting on the loop of Henley in the kidney, which is an action no other diuretic to date has had. Both are very potent diuretics and, according to preliminary clinical reports, will find a very definite, if not a primary place in the management of edema or states of hypervolemia regardless of cause. In acute ventricular failure sodium ethacrynate is valuable because it can be given intravenously. All practising physicians should familiarize themselves with these new drugs for chronic edema and acute left ventricular failure.

SOCIAL SECURITY AMENDMENTS OF 1967 (H.R. 5710)

Review of Amendments to the Social Security Act, Including Comment of the Rhode Island Medical Society As Adopted by the House of Delegates, April 19, 1967.

Section I

SOCIAL SECURITY AMENDMENTS OF 1967 (H.R. 5710)

The legislative proposal H.R. 5710 (90th Congress, 1st Session) has been reviewed by the Rhode Island Medical Society and the following actions taken regarding sections of the bill:

PART 3 — HEALTH INSURANCE BENEFITS Health Insurance for the Disabled

The Society notes that Section 125 would authorize insurance benefits for individuals who have not attained age 65 but who (1) are entitled to disability insurance benefits, or (2) have attained age 18 and are entitled to child insurance benefits and are under a disability which began before the attaining of age 18; or (3) have not attained age 62 and are entitled to widow's insurance benefits on the basis of being under a disability (as authorized by the bill); or (4) are qualified Railroad Retirement beneficiaries. Eligibility would begin January, 1968, or the first month in which the individual satisfied the applicable conditions described above, and would end with the eleventh month after the first month in which the individual ceases to meet the applicable conditions described above, or if earlier, the month before the month in which he attains age 65.

Notwithstanding the eligibility requirement that a widow has not attained age 62, a widow or surviving divorced wife who has attained age 62 would be deemed to have satisfied the applicable conditions in any month in which she is entitled to widow's benefits under the OASDI program and would be entitled to those benefits on the basis of being under a disability, if the period during which she was entitled to disability benefits had ended in the month she attains age 65, instead of the month she attained age 62. The first month in which such a widow would be deemed not to satisfy the applicable conditions would be the eleventh month following the first month in which such benefits would have been terminated on the basis of her having remarried, died, or attaining age 65.

The bill would also amend part B to provide eligibility thereunder to any individual who is entitled to hospital insurance under part A.

Coverage would begin January 1, 1968 for those who have not attained age 65. No person could

enroll for the first time ("in any continuous period of eligibility") more than three years after the close of the first enrollment period "in such continuous period of eligibility" during which he could have enrolled under part B. Further, no individual whose enrollment was terminated could enroll for a second time (during any continuous period of eligibility) unless he does so in a general enrollment period which begins three years after the effective date of the termination.

"Continuous period of eligibility" would mean the period beginning with the first day on which an individual is eligible to enroll under part B and ending with his death. However, any period during which an individual is entitled to hospitalization benefits under part A and which terminated in or before the month preceding the month in which he attained age 65 would be a separate "continuous period of eligibility" with respect to the individual. Each such period which terminates would be deemed not to have existed and would not be considered in applying the penalties for late enrollment.

In the case of a disabled individual who has not attained age 65 but who becomes eligible for hospital benefits under part A before August, 1967, his initial enrollment period would begin on June 1, 1967 and end on October 31, 1967.

In the case of a disabled individual who becomes eligible for hospitalization benefits under part A after July, 1967, his initial enrollment period would begin on the day: (1) he files his application for disability insurance benefits; (2) the widow or surviving divorced wife files her application for widow's benefits; or (3) he files his application for child's benefits after attaining age 18 on the basis of being under a disability before he attained age 18. The enrollment period would close at the end of the fourth month following the month in which he was mailed his notice of a final disability determination. In the case of a child entitled to child's insurance benefits before attaining age 18, the initial enrollment period would begin on the first day of the sixth month preceding the month in which he attains age 18, but only if a determination is made that the child is under a disability which began before he attained age 18.

The coverage period under part B for a disabled individual who enrolls in a month prior to the

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month in which he is mailed notice of a final disability determination would begin the first day of the month in which he is mailed the notice. If such an individual enrolls in the month in which he is mailed the notice or the first month thereafter, coverage would begin on the first day of the month following the month in which he enrolls. If such an individual enrolls in the second month following the month in which he is mailed the notice, coverage would begin on the first day of the second month following the month in which he enrolls. If the individual enrolls more than two months following the month in which the notice is mailed, coverage would begin on the first day of the third month following the month in which he enrolls.

The coverage period for a disabled individual would be terminated at the close of the last month for which he is entitled to hospital insurance benefits (eleven months after his disability ceases).

The increase in premium for late enrollment in a continuous period of eligibility would not apply with respect to any other continuous period of eligibility which the individual may have.

The premium to be paid by a disabled individual would be deducted from his Social Security monthly cash benefit in the case of an individual entitled to disability benefits under the OASDI and/or the Railroad Retirement programs.

COMMENT: Commendable as may be the intention to assist individuals disabled, the Society feels strongly that utilization of Title 18 for this purpose subverts the true purpose and intention of the so-called Medicare law. Assistance to deserving individuals disabled should properly be operated through welfare and disability programs such as those established by the provision of Title 19 of the amended social security act of 1964.

* * *

Outpatient and Diagnostic Specialty Benefits (Part C)

Section 130 under the bill would establish a new part (C) in the Medicare law, the benefits of which would consist of entitlement to have payment made to an eligible individual, or on his behalf, for services to hospital outpatients and for diagnostic specialty services to hospital inpatients.

The bill would change the definition in existing law relating to "outpatient hospital diagnostic services" to "*services to hospital outpatients.*" These services would mean (1) diagnostic specialty services furnished to an individual as a hospital outpatient, and (2) services (a) which are furnished an individual as a outpatient by a hospital or by others under arrangement, including drugs and biologicals which cannot be self-administered as determined in the Secretary's regulations, and (b) which are ordinarily furnished by a hospital or others under arrangement to those out-

patients. It would *not* include any item or service (except diagnostic specialty services) if it would not be included in the definition of "inpatient hospital services" or any services furnished under arrangements to an outpatient unless furnished in the hospital or other facilities operated by or under the supervision of the hospital or its authorized medical staff or furnished by another hospital which is qualified to participate in the Medicare program.

"*Diagnostic specialty services*" would mean diagnostic X-ray services and diagnostic laboratory services furnished by a physician to an individual either as an inpatient or an outpatient of a hospital and other services related thereto as defined in the Secretary's regulations.

COMMENT: The Rhode Island Medical Society objects to Part C in its entirety since it would separate the services of pathologists and radiologists from the services of all other physicians. We recommend instead that all diagnostic specialty services to inpatients and all outpatient services be placed under Part B of the law.

* * *

Elimination of Requirement of Physician Certification in the Case of Inpatient Hospital Services at the time the Individual Becomes an Inpatient.

This section (131) of the bill would amend part A of Medicare by repealing the provision relating to physician certification and recertification of inpatient hospital services. It would add a new provision to the effect that, with respect to inpatient hospital services (other than inpatient psychiatric or tuberculosis services), a physician would have to certify in those cases where the services are furnished over a period of time that the services are required on an inpatient basis for the individual's medical treatment, or that inpatient diagnostic studies are medically required and the services are necessary for that purpose. The certification would be required only in long-term cases with such frequency and accompanied by such supporting material as may be provided in the Secretary's regulations. The first such certification would have to be furnished no later than the 20th day of the period. This amendment would become effective July 1, 1967.

COMMENT: The Society strongly supports the removal of the unnecessary physician certification for inpatient hospital care for each Medicare patient admitted to a general hospital. We also ask that the requirement for re-certification be similarly deleted, since this matter is adequately resolved through the work of utilization review committees in the hospitals in Rhode Island which have the complete support and assistance of the Society at all times, and which were established for the most part at the request of the Society.

* * *

PART 2 — MEDICAL ASSISTANCE AMENDMENTS

Limitation on Federal Participation in Medical Assistance

Section 220 would amend Title 19 to provide that federal payments would not be made for medical assistance in any state for individuals whose income exceeds an amount determined (in accordance with the Secretary's regulations) to be the equivalent of 150% of the highest amount applicable in the state for determining eligibility of an individual for money payments under a program for the aged, families with dependent children, the blind, or the permanently disabled, or the combined program (title XVI). If there is more than one individual living in the home, the amount determined for one individual plus additional amounts for each of the other individuals would have to be determined in accordance with the Secretary's standards.

In computing an individual's (or a family's income), there would have to be excluded any costs (whether in the form of insurance premiums or otherwise) incurred by him or by his family for medical or any other type remedial care recognized under state law.

In determining the amount which is equivalent to 150% of the highest amount of income applicable to an individual or family for the purposes of determining eligibility, the Secretary would have to give consideration to variations in certain costs and to special needs, if recognized for a significant number of individuals, and, where necessary, could

prescribe methods for estimating the total cost of aids and services recognized by the state in determining eligibility under one of the plans. This amendment would be effective beginning January 1, 1968.

COMMENT: We support this amendment limiting benefits to persons who genuinely need financial aid in meeting their health care needs. We have maintained in the development of the public assistance programs in Rhode Island that every effort should be made to allocate the available funds for those with limited finances, rather than to extend the benefits to segments of the population who have resources to meet all or part of their needs.

* * *

Free Choice by Individual Eligible for Medical Assistance

Section 226 would amend the requirements for a state plan under title XIX to require that, beginning July 1, 1969, the plan would have to provide that any individual eligible for such assistance could obtain the assistance from any institution, agency or person qualified to perform services (including an organization which provides the services or arranges for them on a prepayment basis) who undertakes to provide him with the services.

COMMENT: We strongly urge the adoption of this amendment. Free choice is guaranteed for all the beneficiaries of Title 18, but when the law was enacted a similar right was not extended to Title 19 beneficiaries. We urge that this oversight be amended, and that it be effective in 1968 rather than in 1969, as provided in the amendment.

Section II

AMENDMENTS TO THE SOCIAL SECURITY LAW PROPOSED BY THE AMERICAN MEDICAL ASSOCIATION

The Rhode Island Medical Society, as a constituent component society of the American Medical Association, has been informed of the recommendations made by the Association to the Congress for amending both Titles 18 and 19 of the Social Security Law. We have reviewed these recommendations, as listed below, and we have expressed our position regarding them, as noted.

TITLE 18

Payments on Basis of Itemized Statement

The recommendation is made that Title 18 be amended to permit payment of charges for professional services on the basis of a physician's itemized statement of charges, rather than a receipted bill.

COMMENT: The Society supports this recommendation. An itemized statement adequately describing the services rendered is an acceptable practice for commercial insurance companies, and it will work as satisfactorily for Medi-

care reports made to the Rhode Island Physicians Service. Attention is directed to the fact that all claims are checked by the carrier, and are subject to review by the Claims Committee. An amendment to incorporate this recommendation would be advantageous to the patient.

Three Day Hospitalization Requirement

It is recommended that the requirement of three days of hospitalization before qualifying for extended care benefits be deleted from the law.

COMMENT: We support this recommendation. Hospital beds in general hospitals should be utilized for the care of the acutely ill, and the requirement of three days of hospitalization as a qualification for benefits in an extended care facility increase hospital costs, and hinder the very purpose which was planned by the Congress in offering aid for persons requiring care in extended facilities. The availability of review committees for both hospitals and extended care facilities should provide sound supervision of admissions.

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TITLE 19

Payment on Basis of Itemized Statement
 COMMENT: The Society support this recommendation, for the same reasons stated above for such a provision in Title 18. Both Titles should operate similarly in this respect.

Payment of Physician on Basis of Usual and Customary Charges

COMMENT: Title 18 provides for the payment of services on the basis of usual and customary charges. The Rhode Island Medical Society polled its entire membership for an individual confidential report on each physician's usual charges, and all the information thus secured was turned over to the carrier named by the Federal government in order that it might adjudicate all caims on a fair and equitable basis. Payments under Title 19 should be handled on the same basis, and the Society would cooperate completely in furnishing the carrier with the same data furnished the Title 18 appointee.

Use of Insurance Carriers in Title 19 State Programs

COMMENT: The Society support this recommendation in view of the fact that the insurance companies are logical choices for handling the task of claims under programs implementing Title 19 in the States. The Society has had excellent results in the operation of the program for the Dependents of the Armed Forces handled through a private insurance carrier.

No Requirement for Certification or Recertification

COMMENT: For reasons stated above on this issue relating to Title 18, the Society supports the same provision for Title 19 of the Law.

Variable Eligibility Standards Within a State

COMMENT: The Society recognizes that in many of our larger states differences may exist in the cost of living in a rural area, a small town, a city or a metropolitan area, but it does not consider the issues a problem in Rhode Island.

Age Factor Affecting Benefits for Mentally Ill

COMMENT: The American Medical Association has noted that Title 19 benefits differ for mentally ill patients, depending on whether they are above, or below, the age 65. We concur with the belief that there should be no distinction in the services available to mentally ill patients because of age.

PHYSICIAN COVERAGE UNDER SOCIAL SECURITY

COMMENT: The Society supports the adoption of an amendment that would provide for physicians an "alternative insured status" similar to that permitted by the amendments of 1954 and 1956 which brought into the program many new groups of people, and professional self-employed persons, including lawyers. We believe that physicians, having been brought into the social security program, should be given the same privilege for reaching a fully insured status as was given to other professional groups.



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CONGRESS ON THE SOCIO-ECONOMICS OF HEALTH CARE

A Summary Report of the First National Congress on the Socio-Economics of Health Care, Sponsored by the American Medical Association, and Held in Chicago, January 22-23, 1967.

PETER L. MATHIEU, M.D.

Rhode Island Delegate to the Congress

The First National Congress on the Socio-Economics of Health Care, sponsored by the Council on Medical Services in the Division of Socio-Economic activities in the American Medical Association, was held in Chicago at the Palmer House, January 22-23, 1967. Its purpose was to signify the medical profession's ongoing concern for the effective organization, delivery, and financing of health care services. Its aim was to bring together authorities in medicine, health care administration, social science, education and community planning, and other disciplines, to report on new issues and technics in this area. The Congress was divided into four sessions: (a) Orientation and Overall View Goals of the Congress, (b) The Hospital and Its General Changing Role in Health Care, (c) Mobilizing Health Manpower, and (d) Financing of Health Care Services.

PART ONE

Measuring the Nation's Health: Some Principles and Findings. To the statistician the question of "what is health" is likely to be turned around to be "what operational definition of health can we employ which will be: (1) Capable of being measured, (2) Useful in some specific application, (3) Close enough to be the accepted meaning of the word as not to offend the semantic sensibilities?" No single measurement is by itself satisfying. Under the needs for data one should include quantitative information on the health of people, on the use of health services, on the resources of manpower and facilities available to fill the demand, and on the environment as it affects health. Among scientific uses of data experience indicates that there are two principal kinds: (a) epidemiological data, that is, data intended to throw light on hypotheses about the etiology of disease or injury; and (b) establishment of clinical norms — for example, norms of blood pressure, blood glucose following challenge, height-weight age tables, psychological test measures, etc. There are records created for legal purposes — records, that is, of births, deaths, and fetal deaths.

The annual collection of mortality statistics by the Federal Government started in 1900, and it

has covered the country completely only since 1933. For a few states and large cities, data is available for well over 100 years. Statistics for mortality, including cause of death data and infant mortality, are still the only data available in great geographic detail and for a long period of time to indicate trends.

The National Health Surveys which were authorized by the National Health Survey Act in 1956 are of three types: (1) the Health Interview Survey in which the health information gathered in the Survey comes from the subjects themselves by interviews or mail questionnaires; (2) the Health Examination Survey in which selected individuals are invited to a mobile clinic, and the results are derived from clinical tests, measurements, and direct examination by a physician and dentist; and (3) the Health Records Survey in which the source of the data is the establishments providing care, particularly hospitals and extended care facilities in which most of the data is extracted from records created by the use of the establishment. This data does afford an opportunity to measure non-fatal illness in a number of ways and also to gather statistics on disability, such as number of days in bed and days lost from work or school, and hospital days.

In 1964 there were 700,000 deaths attributed to heart disease as the underlying cause of death. Starting in 1968 the National Center for Health Statistics intends to extract also the other diagnostic information on the death certificate and will be able to count on a computer the number of other certificates in which heart disease was mentioned but was not the underlying cause. The Health Interview Survey adds the information that 3,500,000 persons of all ages were chronically limited in their activities by heart disease. Of these, 2,897,000 were limited in their major activity; that is, working, keeping house or going to school, depending upon the age and the sex of the individual. Roughly, 1,300,000 persons are discharged from short term hospitals with a diagnosis of heart disease each year.

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To give two other brief numerical examples: Diabetes mortality in 1964 was 32,000 deaths. In 1961, there were approximately 2,000,000 persons, age 18 to 79 years, with definite evidence of diabetes and aware of it. About 290,000 persons per year are discharged from short term hospitals with a diagnosis of diabetes. Accidental injury deaths numbered just under 104,000 in 1964 and there are about 56,000,000 injuries involving either one or more days of restricted activity or medical attendance. Accidental injuries accounted for 84,000,000 days in bed, 74,000,000 days lost from work, and 12,000,000 days lost from school.

There are many gaps in our knowledge of the nation's health which result from the still primitive state of our methodology. Mortality is not a satisfactory measure of the magnitude and distribution of mental illness. Problems with measurements of the prevalence of alcoholism are especially difficult, and there is still no credible statistic on drug addition. There is very little data available about treatment in private, non-hospitalized cases.

Mortality data permits one to make extensive geographic comparisons while the survey statistics reveal differences in demographic subgroups. The latter show that poverty, lack of education, or black skin are related independently to higher morbidity as measured by reasonably objective overall manifestations of ill health — disability. The picture is mixed. Mortality rates in the communicable diseases have dropped sharply and continue to fall. For certain chronic diseases, also, there is either steady progress or no discernible trend at all; but there is a disturbing rise in mortality from the chronic respiratory diseases and cancer of the respiratory organs. There is also a slow rise in mortality from: diabetes, arteriosclerotic heart disease, ulcers of the stomach and duodenum, cirrhosis of the liver, and kidney infections. The tendency of infant mortality rates to flatten out, and in some areas, to rise slightly have been the subject of much study and worry. Further, there are geographic differences in mortality within the United States perhaps related at least in part to constitution and national stock.

National measures of disability are not conducted regularly in any other country except Japan. No other country has attempted to examine a representative sample of citizenry until this country did it. Since the United States began, Columbia has also started a survey. Is chronic bronchitis the same disease in England as it is here? Great attention has been devoted to comparison of infant mortality rates because this measure has been

widely used as an index of the state of public health. It is wondered whether in its crude form it is a fair measure, since variation of mortality with age of the mother and weight of the infant indicates that there are demographic and socio-economic factors at work which are at least to some extent beyond the control of the health officer or practicing physician.

The Changing Social Scene: Its Impact on the Health Care System. Increasing intrusion of government into health affairs exemplified by Medicare, trends in medical education with too much emphasis on research, too much specialization and the failure to produce general practitioners, the third party systems and increasing involvement of hospitals in areas affecting their regulating positions, and the impact of these developments on medical practice has been profound. Initial response to changes is one of resistance. Only a little more than 100 years ago Semmelweiss angered his colleagues and lost his faculty appointment because he had proposed that physicians should wash the hands they poke around in other peoples' bodies. If physicians are to guide our destinies we must command a better understanding of the inexorable forces with which we must deal. Among these are our own actions, reactions, and feelings.

During the past 50 years there have been more advances in technology and scientific knowledge than in all the preceding time. Reinforcing the developments in medicine have been the continuing advances in industrial technology that have made it possible to feed and support an ever increasing population growth. Population problems (the most powerful force behind the pressure) will require appropriate long range planning. Of the secondary forces that require immediate and constant attention, the most important is public attitudes and expectations. Our mass consumer society has been enriched by public education, mass communications, collective affluence, and the immense power of great political influences. The constantly increasing expectations of this well informed society generate most of the social-political pressures that have decisive influences on matters affecting the patterns of health care. Health programs are "People at Work," skilled people who first must be produced by education and training. The continued escalation of new health programs in face of the existing shortage of manpower is unrealistic if not irresponsible. The shortage of health manpower has been aggravated by maldistribution. Minority groups in our cities may not be affluent, but collectively they have become politically influential. In states where there are deficits in rural health

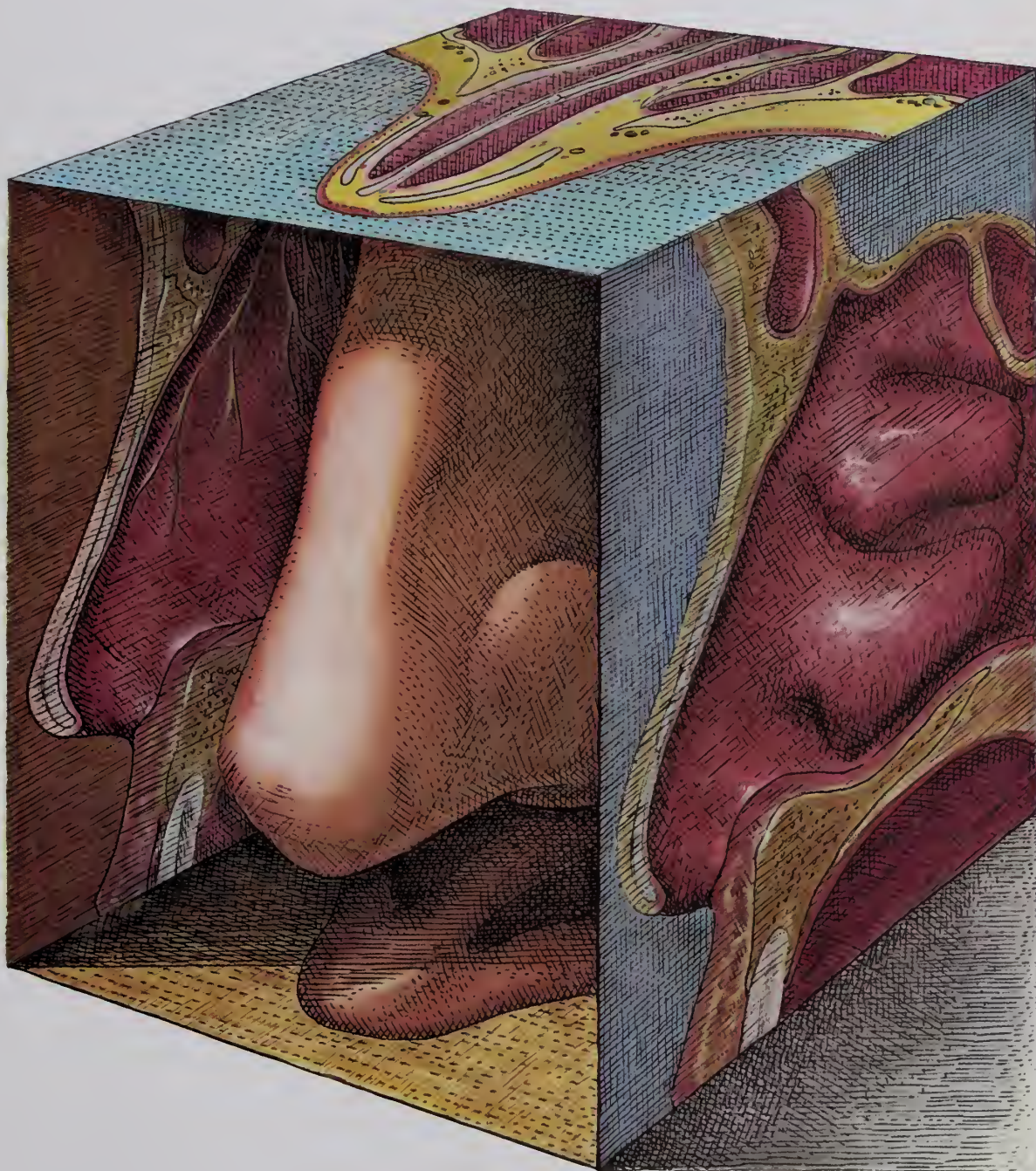
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DORSEY

spring 1967

Season

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this issue: the ubiquitous world of  summer allergies



the ubiquitous world of summer allergies

Donald L. Unger, M.D. • Clinical Assistant Professor, Department of Medicine (Allergy), Stritch School of Medicine (Loyola).

In the Spring a young man's fancy lightly turns to thoughts of—allergies. This is at least true of the 10% of the population who have hay fever and the 4% who have asthma.¹ The snow melts, the trees blossom and the noses run. Patients who were fine all winter may not be enthralled by the sight of the first robin or the blossoming of a crocus, for their appearances may precede the "sneezin' season."

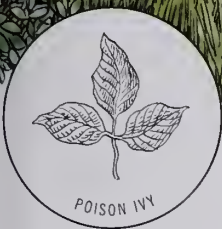
Allergies in general can be divided into winter allergies and summer allergies. In the winter the main problems are inside the house: e.g. dogs, cats, dust and feathers. Houses in the northern half of the country become so dry that it becomes essential to add humidity to the home; this is a far cry from the damp summer months with the moldy basements and need for dehumidifiers.

Early in April trees begin to pollinate, with each tree having about a two week period of pollination. A particular patient may be sensitive to only one tree and thus have his hay fever for such a short time that he thinks he has a cold.² The entire tree season starts about April 1 and ends about Memorial Day, al-

though all hay fever seasons are blurred and prolonged in the southern part of the country. Tree pollen is usually very heavy and a person may well have most of his exposure from those trees immediately surrounding his home.

Grasses pollinate from about May 15 until July 4, and cause "rose fever." Grass pollens are somewhat lighter and more buoyant than tree pollens, and are much more ubiquitous. While there are several varieties of grasses in the United States, they are so closely related antigenically that a person sensitive to one is generally sensitive to them all.³ Thus, while the tree season is really several small seasons intertwined, the grass season will usually result in symptoms for a more prolonged period. Obviously, a grass-sensitive patient will have trouble only when grass is pollinating—he will have to think of another excuse not to mow the lawn after July 4.

Ragweed is the "Big Daddy" of them all in the eastern two-thirds of the country. Pollination is generally from mid-August until the end of September, with the predicted lower counts and longer seasons



in the southern part of the country. Ragweed is a very light pollen which may be windborne for hundreds of miles. An interesting study was made in New York City, in which 90% or more of the ragweed plants were destroyed in three of the five boroughs; pollen counts done during the season were virtually identical in all five.⁴

Ragweed is, of course, the most common cause of hay fever and is associated with an incredible loss of man hours from work each year. Many is the patient who travels to areas where the pollen count is low, just to avoid having symptoms. There is no ragweed anywhere in the world except the United States and portions of Canada and Mexico.

While molds are present through the year, the most important ones predominate from April until November. An old wives' tale has ragweed ending with the first frost, when actually it ends a good month earlier. It is *Alternaria*—the kingpin of the molds—that meets a sudden demise with the first frost. *Alternaria*-sensitive patients are in their glory when there is snow on the ground, and might be ideally suited to man the radar stations in Alaska. In September and October, *Alternaria* counts are at their highest, perhaps associated with the burning of leaves. Other molds such as *Hormodendrum* and

Helminthosporium are associated with the warmer weather, as opposed to *Penicillium* and *Aspergillus* which are household molds.

Summer also means the return of our much maligned associates—bugs. Insects cause allergic symptoms by two methods: the bite or sting of the Hymenoptera group, and the inhalation of particles of the bodies of various insects. Wasp stings are the oldest known form of allergy, as they caused the death of one of the pharaohs in ancient Egypt.⁵ Bees, wasps and hornets account for many deaths in this country, and those sensitive to them should carry special treatment kits at all times; a few minutes delay in the administration of epinephrine to such a patient, might be the difference between life and death. Inhalation of particles of insects may cause sneezing and wheezing in a susceptible individual.⁶ Both of these forms of insect allergy may be benefitted by hyposensitization.

The insect recognizes no professional bounds. He is as apt to bite the physician as the patient. So this season, beware of bugs. And beware, too, of poison ivy. That pleasant stroll through the woods and underbrush with the Boy Scouts might turn into a

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nightmare for the botanically uninitiated in the causes of rhus dermatitis (poison ivy, poison oak and poison sumac). Although you may have been careful, your dog may not have noted that it wasn't clover he jumped through, but poison ivy. His return to your side may give you the rhus dermatitis that you so carefully avoided. That heavenly campfire may be emitting particles of rhus oil to produce an airborne contact dermatitis of the exposed areas of the body.

another fascinating, but rather infrequent type of summer allergy is physical allergy. Some people sneeze on exposure to sunlight, while others break out in rashes, usually on the exposed parts of the body. These rashes may well follow the administration of various photosensitizing drugs, e.g. demethylchlortetracycline.⁷ Another form of physical allergy and one that may be lethal in the summer, is cold allergy. Yes, I mean cold allergy, not heat allergy. The cool dip on a hot day with its consequent sudden chilling of the body, may be the coup de grace for a cold sensitive patient.⁸ It is customary to write "heart attack" on the death certificate, even though the victim may have been an 18-year-old boy who looks like a Greek god.

Lest the reader be depressed by this saga of afflictions associated with the warmer months, perhaps he should remember that it is also a time for swimming, baseball, lying in the sun and taking that long-planned vacation. So let's all join in a chorus of "In the Good Old Summertime," as we sneeze, wheeze and scratch. Be careful of your suntan lotion, however; it may cause you a contact dermatitis.

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(Advertisement)

CONGRESS ON THE SOCIO-ECONOMICS OF HEALTH CARE

(Continued from Page 354)

services the state legislators are frequently dominated by rural legislators. In both instances there exists a latent resentment to medicine, a hostility that can be resolved by the development of a responsible program designed to meet obvious needs.

There are many possible ways to develop plans that reflect the impact of the shifting scene of the health care system. The Oklahoma plan is an attempt to meet health needs in a manner that is compatible with the traditions of American medicine. The physicians in the State, through the Oklahoma State Medical Society, were approached with an invitation to join in a mutual effort to serve the health needs of the people of Oklahoma, knowing full well that any physician worthy of his name would react in the best interests of the public, provided he be given the opportunity to say "yes," that he not be forced to submit to unilateral planning, that he is not humiliated, and that his special rights and codes of ethics are respected. The reactions of the physicians in Oklahoma in responding convinced the planners of the health programs in Oklahoma that much can readily be accomplished by providing a thoughtful and emphathetic consideration for the physician who must deliver the services.

The faculty of the University was approached in the same manner. Civic leaders of the State engaged their interests and support in bringing the private interests into the planning and acknowledging the Medical Center's social responsibility to relate education and training programs to needs. By combining all the elements of the population of the states, Oklahoma has produced unprecedented unity of spirit and understanding that holds well for the future and has already produced a change in the image of the profession in the State.

The Nation's Health Manpower. 300,000 physicians, 2,500,000 allied health professionals and technical health personnel, almost 8,000 hospitals with 1,750,000 beds, several thousand nursing homes, rehabilitation centers and day care facilities are directly involved in provision of health care to the American people.

The annual expenditure in health and medical services in this country increased from \$13 billion in 1950 and \$27 billion in 1960 to almost \$40 billion last year. Private spending for personal health care in the United States was more than \$26 billion or about 6% of personal consumption expenditures. Per capita expenditures for health care were approximately \$200 last year. While the problem of health manpower cannot be answered by playing the numbers game, it is of interest to note

that at the present time the physician population ratio in the U. S. is approximately one per 607. Recent projections from the AMA indicate that, with the number of new medical schools and increases in the size of entering classes in existing schools, this ratio will be maintained and perhaps even lowered slightly in the years to come. How far can we go; how far do we need to go? Is it economically feasible to try to get more physicians in an effort to reduce the ratio to one per 500 or one to 250? Is this the only means by which the health care needs of our society can be met? Are there other more economical and feasible ways of better utilizing the highly trained skills and scientific knowledge of the physician?

Social demands and scientific advancement are forcing the physician more and more into the role of a manager. The relationship of the physician and the patient must continue to exist. It is, therefore, paramount that each member of the supportive team perform to specifications and that their skills interlock in the right way and at the right time. The training of supportive personnel is of more than academic interest to the physician. Their competence has a vital role in his every activity.

A study of health manpower made jointly by the American Hospital Association and the United States Public Health Service shows a 20% increase in personnel is needed if hospitals are to provide optimum patient care. The total number of personnel presently employed is 1.4 million. An additional 275,000 professional and technical personnel are needed. The most urgent needs are for 30,000 nurses, 40,000 practical nurses, 50,000 aides in general hospitals, and another 30,000 aides in psychiatric hospitals. Other needs include 9,000 medical technologists, nearly 7,000 social workers, and 4,000 each of physical therapists, x-ray technologists, and surgical technicians. One can also add shortages of trained personnel in occupational therapy, medical records, dieticians, inhalation therapy, and most if not all of the other recognized supportive categories.

Especially in health care quantity is no substitute for quality. Too much is at stake. Ineptitude on the part of a sincere public trained laboratory worker may prove to be a fatal error. We need not only more health workers, but, more important, we need good ones. Community colleges are an almost untapped resource for students in training facilities in allied medical fields. Physicians, health agencies, and health care facilities through community planning with their local educational institutions can do much to solve the problem of the health manpower shortages. Equally important, the physician needs to reexamine his activities and de-

(Continued on next page)

termine those which must be done by him and those which could best be done by others for maintaining the desired level of patient care. From such studies will emerge the beginning answers to our medical manpower problem.

Medicine's Responsibility in the Changing Scene. In programs such as the Oklahoma plan and other public health service programs, it is necessary to encourage these groups to include the private medical doctor and to promote this private physician. Expansion of government programs in health is not necessarily the wave of the future. The private sector of our population must take more initiative and leadership in getting money from its own pockets and making freedom happen. What we call "free" — not slavery — is suggested as a way of life opposed to governmental interference to the way of life which was once strictly private. We criticize the Federal Government. We say that we should return to a form of the economy as existed before the New Deal. This is like ancient history. Forty-six out of 100 Americans are under 25 years of age today. Another 25% are less than 45 years of age. Seventy-one out of 100 Americans grew up in a world different than the old age group. To them they know nothing but the New Deal. People are generally concerned about governmental influence into many aspects of our lives today.

NEW . . . !

LONG-TERM DISABILITY INSURANCE

Guaranteed Renewable To Age 70 For Those Who Need Amounts In Addition To the Rhode Island Medical Society's Underlying Group Plan.

Physicians in good health under age 65, now may apply for amounts up to \$225.00 weekly, in addition to benefits now provided. Benefits payable at option of the insured for 1 year, 2 years, 5 years, 10 years, to age 70, OR FOR LIFE ! ! !

Rhode Island Physicians need not go out of Rhode Island nor purchase *mail-order* insurance to have the BEST in Disability Insurance! We have yet to see a mail-order or individual policy with benefits and value superior to this one.

For further information, send us your name, address, and date of birth.

R. A. DEROSIER AGENCY

**54 Custom House Street
Providence, R. I. Temple 1-4833**

What about the G. I. Bill of Rights for education? What about the free hot lunch programs for children, the free home loan programs? Do people consider these actions interference? When government pays a share of the cost of the aged — is this interference? Can the medical profession criticize Santa Claus?

We and our brethren in the business professions should not have as our argument — that we should not do this or that; but rather our argument should be — there is no need for these programs because a private sector is providing these services. The Government, as a rule, discovers and also announces a proposed solution. The people accept this. The Government has persuaded the consumer that the public is cheating them on labeling prices. Some are doing this; but, if business is to convince the public that no need for truth in labeling is needed, it must eliminate practices which are existent in some forms of our economy. The involvement of the physician with the government at all levels is of long standing. The new philosophy of the United States Government — the new programs of Medicare — is really one of social insurance for people. It is a program which we can all live with. It is not indigestible. It doesn't limit the choice of physician. It does provide reimbursement. The principle threat of Medicare is not its present provisions, but in its implications. The private sector continues to spend three times as much for services as the public segment. Should the government cut funds, services will be cut. Corners will be clipped and the people will be disappointed in still another national system. The public will continue to accept government analysis and programs and needs unless the private segment can make such a showing before the public that, when the government puts forth these programs, they will not be immediately embraced by the public.

The private sector must do a better job. It must demonstrate its competence to deliver the services to the public. The private sector must spot our weaknesses and correct them. We must evaluate the services offered by the doctor and the allied health professions in the office, in the hospitals, and in the field. We must evaluate the quality of these services and the technics employed in performing these services. We must evaluate our manpower — health situation. We must concern ourselves with our population growth, our expected longevity, the general affluence of our society, and the government financing of programs. If present programs are not developing sufficiently well, we must look into the problem and make them work. We should examine the future needs of health care. The role of leadership is not too well understood. Unless

(Continued on Page 358)



"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"

The long-continued action of Novahistine LP should help you both get a good night's sleep. Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

NOVAHISTINE® LP



PITMAN-MOORE Division of The Dow Chemical Company, Indianapolis

CONGRESS ON THE SOCIO-ECONOMICS OF HEALTH CARE

(Continued from Page 356)

we lead, we shall find ourselves consistently in a position of reacting to programs set forth by other groups.

The Hospital and Its Changing Role in Health Care: Evolution as a Community Resource. In 1873, there were 175 hospitals in the United States. By 1965, there were over 7,500 hospitals. Formerly a hospital was merely a warehouse. Now it is a sophisticated institution with delivery of multiple services. Mental institutions are beginning to emerge from the warehouse stage. The out-patient department has been increasing. The public usage of medical emergency services has been increasing. Hospitals have become an organized community resource for a wide variety of allied professions. At this point in time, hospitals are but one of a number of community resources for health. Some feel eventually that hospitals will be the super-market for health care. Others feel that the hospital should narrow its function to the care of the bed patient, permitting other resources to care for the ambulatory services. Will the health profession be a primary witness? Or, will the health profession provide the leadership in directing effective health care? The health profession must focus on the

health services at the community level, the total community needs and the total community resources.

Changing Concepts of Medical Staff Organization. Changing concepts of medical staff organizations is not so much a matter of new concept as of changes in understanding and an emphasis of basic principles. The hospital itself is changing and the community hospital is increasingly assuming the role of the community medical center. Education at all levels and laboratory research have been added to the traditional role of patient care, and the community hospital best approaches the character of the University Hospital.

The hospital is a single organization. Its primary purpose is to provide high quality patient care. Vital interest of the hospital, trustees, administration, and physicians has been made crystal clear by a recent legal landmark — the decision in the Darling Case, confirmed by the Illinois Supreme Court in November of 1965. The Darling Case deserves a brief review. A high school boy broke his leg during a football game. He was treated in a community hospital by a general practitioner who applied a cast which was too tight. The nurses were aware of adverse symptoms and findings and immediately phoned the physician of the complaints. After several days, the cast was split, and after ten days the patient was transferred to a specialist's care in the metropolitan hospital but after several operations the leg was amputated.

Suit was brought against both the attending physician and against the community hospital. An out of court settlement was quickly concluded with the physician and the case proceeded to trial against the hospital. In support of his allegations that the hospital had failed to perform its duties to the patient, the plaintiff cited the standards of the joint commission on accreditation of hospitals and also the hospital licensure standards of the Illinois Department of Health. Both state the governing body of the hospital is ultimately responsible for patient care and for the professional standards of the institution. The plaintiff also called attention to the ethical standards of the American College of Hospital Administrators which state, in effect, an administrator's reluctance to interfere with a physician's handling of a case should never be permitted to jeopardize the patient's welfare. The jury verdict said, in effect, that the hospital is considerably more than a place which furnishes physical facilities for the practice of medicine by an unorganized group of practitioners. It is only natural that lay people from the community at large believe that a hospital should be required to adhere literally to licensing and accreditation standards

(Continued on Page 359)

THE DEPARTMENT OF HEALTH, EDUCATION AND WELFARE HAS SET RIGID REQUIREMENTS FOR THE CERTIFICATION OF CLINICAL LABORATORIES IN REFERENCE TO THE PERFORMANCE OF LABORATORY EXAMINATION ON RECIPIENTS OF THE MEDICARE BILL, INCLUDING SECTION 19.

WE HERE AT THE HOPKINS MEDICAL LABORATORY TAKE GREAT PLEASURE IN ANNOUNCING THAT WE MEET ALL THE REQUIREMENTS SET FORTH BY THE DEPARTMENT OF H.E.W.

HOPKINS MEDICAL LABORATORY

322 BROADWAY

PROVIDENCE, RHODE ISLAND

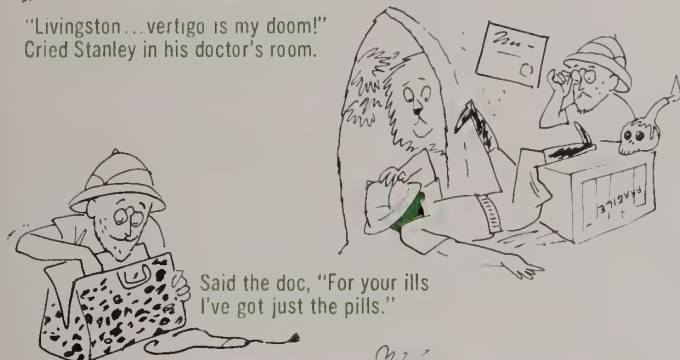
Tel. GAspee 1-7244

Angelo G. Viticonte, A.B., M.T.
Director

Ascanio Di Pippo, Ph.D.
Biochemistry



"Livingston... vertigo is my doom!"
Cried Stanley in his doctor's room.



Said the doc, "For your ills
I've got just the pills."

Said Stan,
"Antivert, I presume."



Antivert® (meclizine HCl, niacin) stops vertigo

Tablets: (meclizine HCl 12.5 mg. and niacin 50 mg.) Syrup: (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and niacin 25 mg.)

Most widely prescribed anti-vertigo agent! Complete to moderate relief of symptoms in 9 out of 10 patients²

Antivert, the leading anti-vertigo product,¹ combines meclizine HCl, an outstanding drug for treatment of vestibular dysfunction, with niacin, a drug of choice for prompt vasodilation. Prescribe Antivert for your patients with vertigo, Meniere's syndrome and allied disorders.

Precautions and contraindications: Frequent, short-lived reactions include: cutaneous flushing, sensations of warmth, tingling and itching, burning of skin, increased gastrointestinal motility, and sebaceous gland activity. In explaining these reactions to the patient, it is suggested that they be regarded as a desirable physiological sign that the niacin is carrying out its intended function of vasodilation. Because of this vasodilation, severe hypotension and hemorrhage are obvious contraindications to Antivert therapy. Although the incidence of drowsiness and other atropine-like side effects such as dry mouth and blurring of vision is low, the physician should alert the patient to the need for due precautions when en-

gaging in activities where alertness is mandatory. **Use in women of childbearing age:** A review of available animal data reveals that meclizine exerts a teratogenic response in the rat. In one study a dose of 50 mg./kg./day (50 times the maximum recommended human dose) produced cleft palate in 2 of 87 fetuses when administered to the rat at critical times during the first 15 days of gestation. At doses of 125 mg./kg./day, meclizine will produce 100% incidence of cleft palate in the rat. At doses of 25 mg./kg./day, decreased calcification of the vertebrae and relative shortening of the limbs were also produced in the rat, but experts disagree as to whether this is a teratogenic response. While available clinical data are inconclusive, scientific experts are of the opinion that this drug may possess a potential for adverse effects on the human fetus. Consequently, consideration should be given to initial use of a nonphenothiazine agent that is not suspected of having a teratogenic potential. In any case, the dosage and duration of treatment should be kept to a minimum. **Dosage:** One tablet or one to two teaspoonfuls (5-10 cc.) t.i.d. just before meals. Specific requirements for individual patients should be determined by the physician. **Supplied:** Tablets in bottles of 100 and 500. Syrup in pint bottles. Rx only.

References: 1. Based on 1966 data from independent physicians' market survey organization. 2. Scal, J. C.: Eye Ear Nose & Throat Month. 38:738 (Sept.) 1959.

Neobon® geriatric supplement helps keep them 'on the go'

Each capsule contains:

(1) Vitamins and Minerals	
Vitamin A (acetate)	2000 U.S.P. units
Vitamin O (ergocalciferol, U.S.P.)	200 U.S.P. units
Vitamin B ₁ (thiamine mononitrate, U.S.P.)	0.5 mg.
Vitamin B ₂ (riboflavin, U.S.P.)	0.5 mg.
Vitamin B ₆ (pyridoxine HCl, U.S.P.)	0.5 mg.
Niacinamide, U.S.P.	50 mg.
Calcium pantothenate, U.S.P.	5 mg.
Vitamin E (di-alpha tocopheryl acetate)	5 I.U.
Rutin	5 mg.
Cobalt (from cobalt sulfate)	0.033 mg.
Molybdenum (from sodium molybdate)	0.066 mg.
Copper (from copper sulfate)	0.33 mg.
Manganese (from manganese sulfate)	0.33 mg.
Magnesium (from magnesium sulfate)	2 mg.
Iodine (from potassium iodide)	0.05 mg.
Potassium (from potassium sulfate)	1.66 mg.
Zinc (from zinc sulfate)	0.4 mg.

(2) Hematopoietic Factors	
Iron (from ferrous sulfate)	3.40 mg.
Vitamin B ₁₂ (cobalamin concentrate, N.F., as Tablets®)	1 mcg.
Vitamin C (ascorbic acid, U.S.P.)	50 mg.

(3) Digestive Enzyme	
Pancreatic substance*	50 mg.
(4) Gonadal Hormones	
Methyltestosterone, N.F.	1.0 mg.
Ethinyl Estradiol, U.S.P.	0.006 mg.
(5) Amino Acids	
L-lysine (monohydrochloride)	50 mg.
L-Glutamic acid	30 mg.

*Enzymatically active defatted material obtained from 250 mg. of whole fresh pancreas.

For older adults who require it, daily supplementation with Neobon can help overcome decreases in endogenous gonadal hormone production, as well as deficiencies of iron, vitamins and other nutritional factors. In a single convenient capsule, Neobon provides vitamins, minerals, gonadal hormones, hematopoietic factors, digestive enzymes, and amino acids—all selected for adjunctive therapeutic value in the geriatric syndrome. For example, one of the gonadal hormones in Neobon is ethinyl estradiol. It is more slowly metabolized in the body than natural estrogens or their esters.

Precautions: Contraindicated in patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast or prostate.

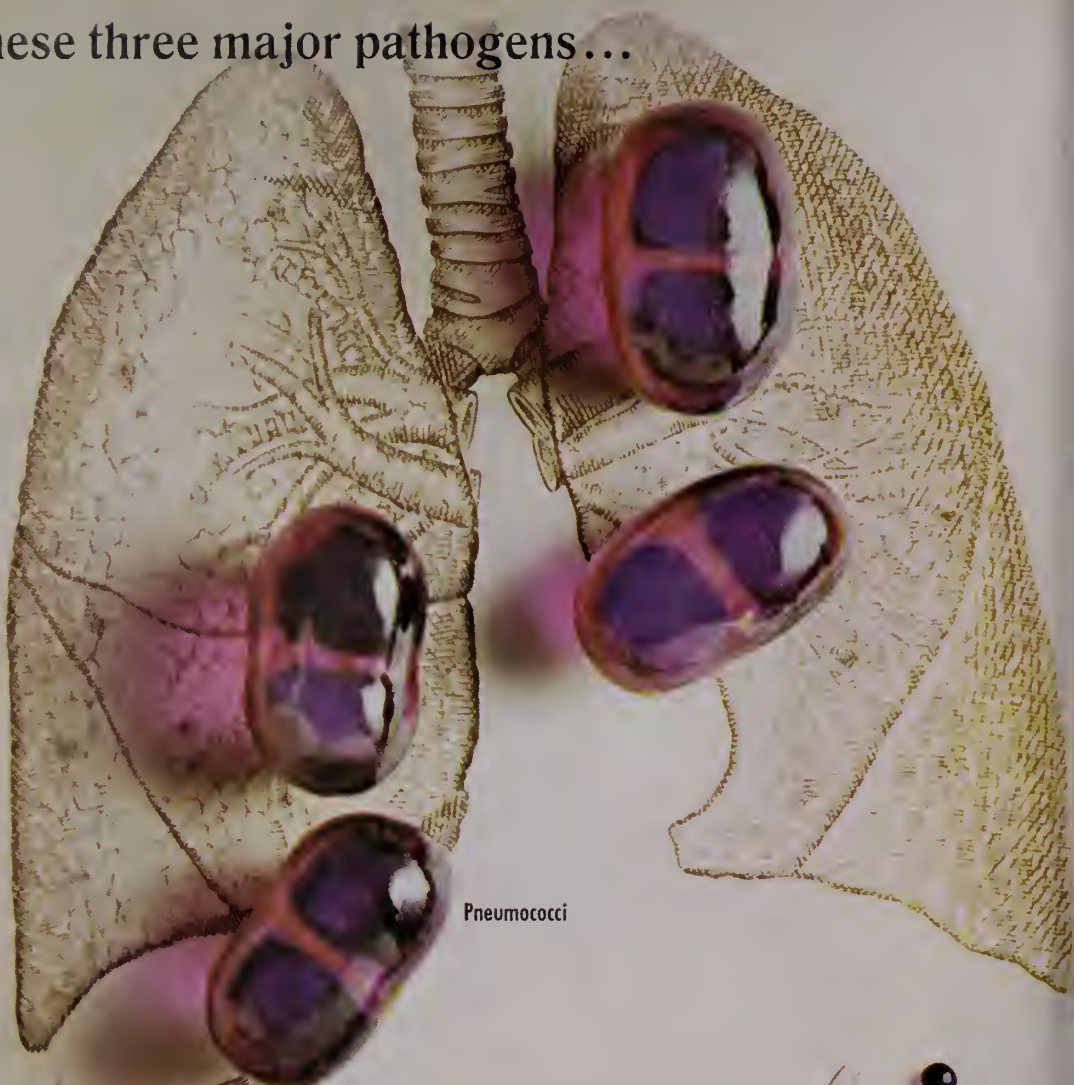
Dosage: One capsule, t.i.d. with meals, or as directed by physician.

Supplied: Bottles of 60 capsules. Rx only.



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NEW YORK, N.Y. 10017

Against these three major pathogens...



Pneumococci

Penicillin-Sensitive
Staphylococci



Beta-Hemolytic
Streptococci



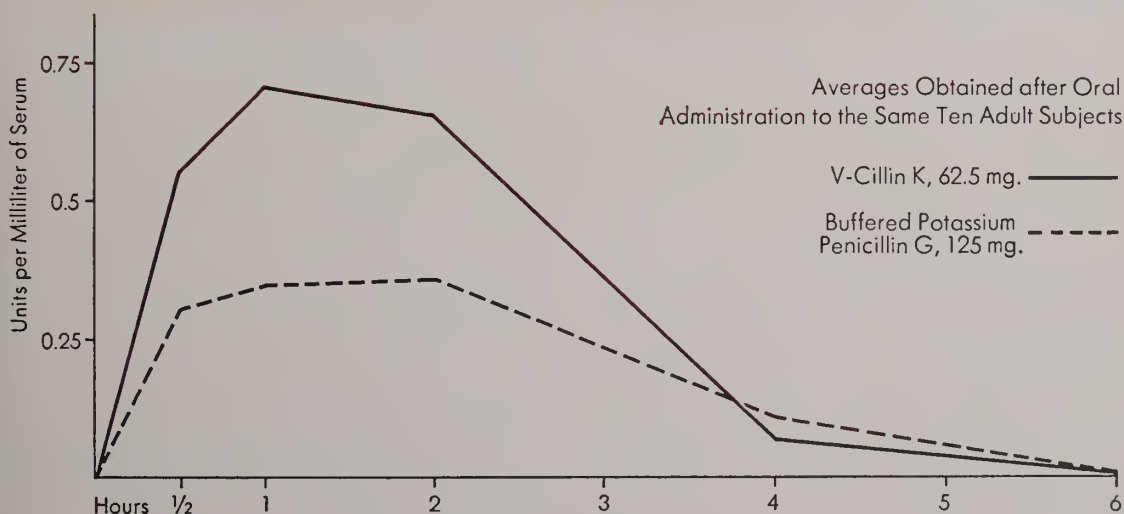
V-Cillin K[®] provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive)		Streptococcus, Group A		Diplococcus Pneumoniae	
	MIC (mcg./ml.) Median	Range	MIC (mcg./ml.) Median	Range	MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269:1019, 1963.

with high blood levels, even in the presence of food

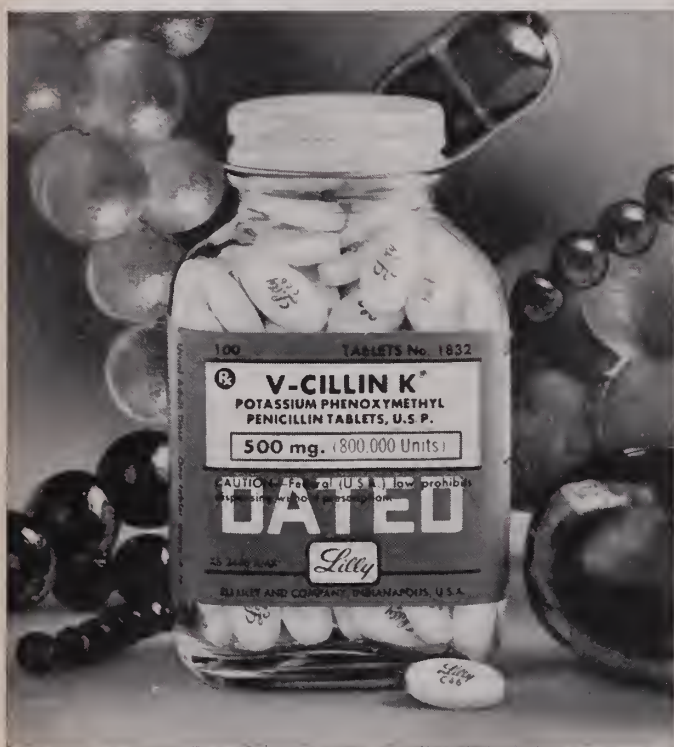


Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K[®]  700636
Potassium Phenoxyethyl Penicillin

(See next page for prescribing information.)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxy-methyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic

manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, its administration should be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a significant index of sensitization. The following hypersensitivity reactions associated with the use of penicillin have been reported: skin rash ranging from maculopopular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects or are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants the daily dosage may be 50 mg. per Kg. of body weight divided in three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units once or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderately severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), bottles of 50 and 100; and 250 mg. (400,000 units) and 500 mg. (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) per 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [011867]

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

CONGRESS ON THE SOCIO-ECONOMICS OF HEALTH CARE

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and to following the provisions of the medical staff bylaws.

Another basic principle states the medical staff must establish high standards of practice. It must effectively enforce and maintain them through its bylaws and its staff organization. This implies the necessity of a conscientious, continuous, and systematic method of reviewing the clinical practice of the institution.

The Medical Staff and Quality of Care: Technics for Assessment: Validity and Limitations. Outcome may be unrelated to quality of care because the medical sciences of the period simply lack knowledge to deal with the problem. Poor outcome may result even though the highest quality care available at the time has been administered. The outcome chosen may be irrelevant to the patient's problem as, for example, when survival is used as an outcome criterion in diseases in which disability rather than death is a result. Many factors other than medical care influence outcome and these are difficult to control or compare. For many diseases long periods of time must elapse before the relevant outcomes are clear and the results are not available in time to be of use in quality control.

Other characteristics of care may be summarized under the two headings: *Structure and Process*. Under evaluation of structure come most of the traditional analyses that the joint commission on the accreditation of hospitals and medical staffs have used in assessment. Is the physical plant adequate, and is it well maintained? Are there special facilities such as blood bank or diagnostic laboratories? Are there internal departments and committees such as a medical records department or a tissues committee? What is the number of personnel in relation to the number of beds? How well are they trained? Are the physicians board eligible or certified?

In recognition of the limitations in evaluation of structure, the method with which most current assessment of hospital care is now gravitating is the study of process. There are a number of ways of evaluating process: (1) The statistical approach. One may study utilization rates for special procedures such as admissions, chest x-rays, or serologic tests for syphilis, or hematocrits; number of consultations; length of hospital stays by diagnosis. Such analysis may be automated through a construction of computed comparable abstracts of all case records and the use of programs such as those developed by the Commission on Hospital activity. (2) The Hospital Review approach known as "Medical Audit" may be built upon the abstracts

used in the statistical approach. (3) The practice observation approach has the advantage of avoiding reliance on the medical record and can differentiate between lapses in record keeping and lapses in practice.

Patients' satisfaction with care is a most important criterion which has yet to be placed appropriately in the balance. How are such presenting factors as the severity of the illness and such complicating factors as intercurrent illness and social economic problems to be determined and analyzed? How are we to separate the effects of underlying illness and the unchangeable aspects of environment from the effects of the medical care? These questions must not be neglected. The Utilization Review Committee can expand the traditional assessment of structure and process. Their solution will require cooperation among physicians, other medical personnel, social scientists, and the patients themselves.

Social-Economic Determinants of Quality of Care in the Hospital. Improvement in the quality of health services is not the function of physicians alone but one of complex synthesis of interactions with other professional disciplines. Those fundamentally interested in the delivery of health services and their quality have focused on such issues as comprehensive out-patient department efforts,

(Continued on next page)

"BUT MAESTRO

all those people out there! I'm scared!" The young soprano, waiting for the curtain to rise on her New York debut, trembled. "Now, now, my dear," soothed the great impresario, "never mind all those people. I shall be in the back row. Just walk out there and sing to me! Keep cool!"

Ah, she thought, that was it! Cool — like Warwick Club Pale Dry Ginger Ale, available in the full 32-ounce quart bottle! It sings in the glass...



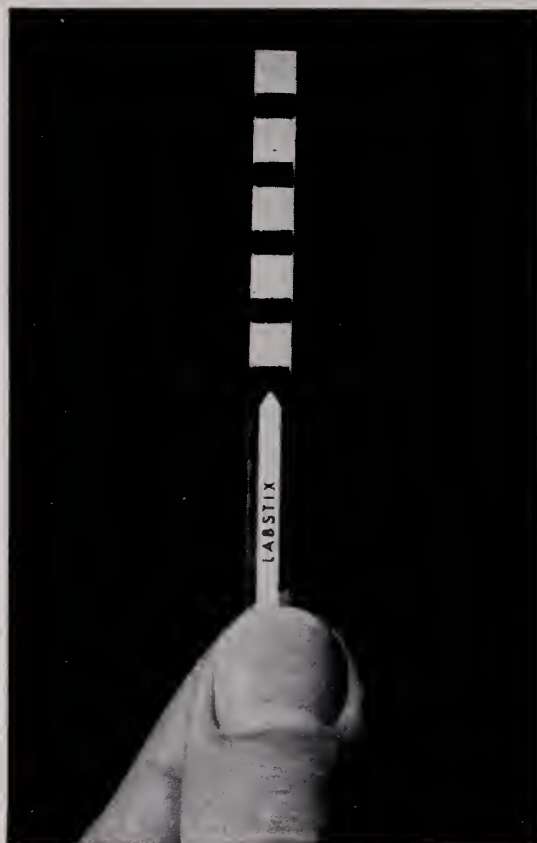
home care, and shortening the hospital stay. In mental institutions for the chronically ill, emphasis has been in rehabilitating the patient to the community.

All physicians who hospitalize their patients firmly desire them to receive the best possible patient care. Evidence suggests the need for considerable research and modification of present administrative practices before one can be satisfied that hospitals are providing a therapeutic atmosphere essential for the best care of patients. Evidence suggests that physicians will have to be far more involved than has been the custom in planning and administering hospital patient care.

The ultimate criterion of success of hospital design, administrative structure, or inter-professional collaboration is the welfare of the patient. Evidence supports the usefulness of elective moving in arrangement for hospitalized children especially in the infancy-toddler age group. Free visiting hours for children of all ages have been found practical as well as helpful in many ways in a hospital. Older children and most adolescents seem to prefer a gregarious sort of group hospital experience and the traditional ward arrangement is often quite satisfactory. Apparently adults like privacy when sick and the single room is a preferred module of care.

Important is the way in which physicians, nurses, and all the others on the hospital staff work together to provide administration, transactions or manipulations required by the patients during their stay in the hospital. Such efforts range all the way from providing hot food within reach of a disabled patient to the developing acute upper respiratory obstruction. Disciplinary team work of the sort implied is not generally provided in the administrative structure of the acute general hospital. This structure is usually vertical in nature with the nurses reporting through their supervisor to the administrator, dieticians through food service to the administrator, etc. Communication and collaborative effort at the level of the patient is therefore a highly individualized affair depending on attitudes, personalities, and other variables and inter-personal relationships between patient-nurse, doctor, and the rest of the patient-care hierarchy. The formal organization of the hospital is, to a large extent, concerned with efficiency, discipline and economy.

Details of meeting the patient's individual needs are left to the informal organizational structure developed on each ward and varying with professional styles of the involved personnel. One study points out that the patient is less an actor than a passive observer of the ward's social system. From the point of view of ward personnel the patient is not considered to be part of the ward's social life.



Take five...

LABSTIX® provides 5 important urinary findings*—on a single reagent strip! That's *more* information than you can get from any other single reagent strip. You know the results in just 30 seconds—while the patient is still in your office—and readings are reliable and reproducible. LABSTIX is easy to handle, too. Never goes limp, even when wet, because it's made with clear, firm plastic. And results with LABSTIX are easy to read—color contrast between the test areas and the transparent plastic is clearly defined. An unexpected "positive" from testing with LABSTIX may help in detecting hidden pathology before marked symptoms are manifest.

*Blood; ketones; glucose; protein, and pH.

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Note: AMERICAN HOSPITAL FORMULARY SERVICE
CATEGORY NUMBER 36:88

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...Plus one

You can extend your testing scope by including ICTOTEST® Reagent Tablets, the 30-second determination for bilirubinuria—which can be an early sign of obstruction of the common bile duct, infectious hepatitis, or other liver disease. This test is also useful for detecting liver damage from carbon tetrachloride and other halogenated hydrocarbons used as industrial and household solvents. Positive findings with the urine-testing team of LABSTIX and ICTOTEST can represent significant guides to patient management in many clinical situations. "Negatives" may help rule out suspected abnormalities over a broad clinical range and are important for the patient's record.

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He is pleased to have little interest in the problems of hospital organization and management beyond seeing that he gets the most service for the least price. Another study shows that hospitals with poor moral, causing them to have difficulty in retaining nursing staff and other personnel, have a strikingly longer average patient stay than other comparable institutions with more successful personnel practices. Hospitals with good ward atmospheres have both stable nursing staff and rapid recovery rates.

The collective therapeutic nature of the hospital and the social functioning of hospital personnel have measurable impact in quality of care. A possibility is for community hospitals to develop inter-professional groups consisting, for example, of physicians, nurses, social workers, dieticians, hospital administrators, and laboratory technicians which might include nonprofessional people such as janitors and orderlies. Such groups, called patient care committees, could make appropriate modifications in hospital procedures and policies. The more technical and basically scientific manipulations of patients become a more vital requirement for attention to the social and personal issues of patient care. It is predicted that the social and behavioral aspects of patients care will increase in importance as development in such fields as genetics and molecular biology give the physician an increased and more personal and vital power.

Hospitals' Systems and Quality. Many factors contribute to the quality of general care in any general hospital. One approach is to identify all the factors which contribute to it — (1) an analysis of contributing factors, (2) an analysis of consequent or rather subsequent factors, (3) develop the appropriate modality of mathematical function for weight and combine all of these identified measured factors into an overall index which is defined to be the quality of patient care.

Certain factors like death are a consequence of quality care, that is after the fact. Other factors like number of nursing hours are contributing factors. The number of contributing factors determines the aggregate of consequent factors. Example: The effect of a new disinfectant upon staphylococcus may use some contributing factors and some consequent factors to develop a mechanism which may have the following uses: (1) as an aid in decision making, (2) make managerial decisions.

Some professionals are consistently more able to make more reliable assessments about the quality of patient care than others. Reliability of professional personnel in making assessment should be checked for two different criterion based upon (1) their own specialty and (2) an overall viewpoint.

(Continued on next page)

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Improving Emergency Medical Care: Scope of the Problem. When an emergency exists professional decisions must be made. Cardiac monitors, pacemakers, potent drugs, institutions with tremendous staffing must be available in providing effective emergency services. Despite our great advances in emergency medical systems, there remains much need for development.

For all ages the leading causes of death in order are: heart disease, cancer, stroke, and accidents. Accidents are the leading causes of death for the age groups one to thirty-seven. Accidents are the leading causes of disability resulting in two million hospitalizations per year. In developing the emergency room systems one must be alert to the population and the types of diagnoses admitted and discharged to and from short stay hospitals and the various services necessary to meet the needs of the emergency patient. One must consider personnel, transportation, communication, equipment, emergency facility itself, and special care units all interacting to serve the needs of the emergency patient.

Areawide Planning for Emergency Services. Emergency services imply immediate action. Emergency services must be extremely accessible. Personnel should be accessible to meet any unexpected need and meet it expeditiously. Some of the drawbacks to the present delivery of emergency services may be cited: (1) They are episodic and impersonal. (2) They are unable to provide all services due to "overloading." One basic solution in areawide planning for emergency service may be (1) a reduction in the emergency volume; (2) provide alternative sources on a nonemergency basis for care; (3) make every effort to improve the services in the emergency department, but actually this may only aggravate the situation. Truly one must have comprehensive areawide planning both for emergency and for nonemergency services, must improve and increase the relationships of the physicians to each other, might provide private physicians' offices at the hospital, might provide for satellite neighborhood centers in poverty areas, and might provide for comprehensive clinics.

In all of these provisions for providing services one must encourage the ongoing personal patient-physician relationship. Each hospital must adopt a basic philosophy to meet these needs. Each hospital must plan for general ambulatory care on a continuing basis. Perhaps only the larger hospitals should provide emergency room services and the smaller hospitals shut down emergency room services which are not at present adequate. This may permit a larger facility to provide a volume of emergency services at reasonable costs. Hospitals

(Continued on Page 368)



She simply sits while the party goes on around her, already used to being the girl who is left out. She tries to lose weight—but her emotions won't let her. She becomes irritable and depressed when she doesn't eat, and anxious when she considers her future. So each time she gives up.

*"What can I do?" she asks when she visits your office.
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methamphetamine hydrochloride 15 mg., phenobarbital 64.8 mg. (1 gr.)
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BRIEF SUMMARY / Indications: Ambar suppresses appetite and helps offset emotional reactions to dieting. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. See package insert for further details.



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Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis. Not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Additional information available to physicians upon request.
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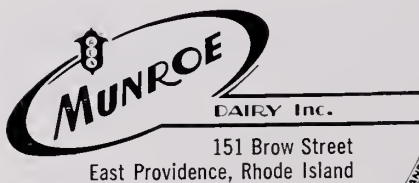
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THROUGH THE MICROSCOPE

(Continued from Page 326)

NATIONAL GROUP FOR MEDICAL EXAMINERS FORMED

Formation of the National Association of Medical Examiners to advance the administrative, career and other practical interests of the country's medical examiners has been announced by Milton Helpern, M.D., Chief Medical Examiner of New York City and Interim President of the new organization.

Dr. Helpern said the Association will seek to deal with such problems as the need for greater understanding and support for the medical examiner system from the general public, government officials at all levels and the medical and legal professions, and the need for a greater exchange of information and opinion among medical examiners.

If the new organization receives adequate support, it will:

1. Publish a newsletter.
2. Establish and operate a central reference library and a clearinghouse of information on the work of the medical examiner.
3. Assist, upon request, local and state governments seeking information and advice on the best way to establish and maintain a medical examiner's office.
4. Carry out projects designed to help medical examiners in their activities.

ONE SENTENCE ESSAY

Formula for Avoiding Atherosclerosis

The person least likely to get atherosclerosis is a hypotensive, bicycling, unemployed, hypo-beta-lipoproteinemic, hyper-alpha-lipoproteinemic, non-smoking, hypolipemic, underweight, premenopausal female dwarf living in a crowded room on the island of Crete before 1925 and subsisting on a diet of uncoated cereals, safflower oil, and water.

... Dr. Alan N. Howard, Research Fellow,
Dept. of Pathology, Cambridge University

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OPEN**

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Each Numa Dura-Tab provides:

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ephedrine HCl	50 mg.
butabarbital	25 mg.

(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

DISTRICT MEDICAL SOCIETY MEETINGS

WASHINGTON COUNTY MEDICAL SOCIETY

The Annual Meeting of the Washington County Medical Society was held at the Larchwood Inn in Wakefield, R. I. on 11 Jan. 1967. The call to order was a 11:19 a.m. and the President, Dr. Howard Laskey, presided.

The minutes of the previous meeting were approved without additions or deletions.

In a move by the Chair seconded by Dr. Manganaro, Dr. McGrath was authorized to gather any and all materials and literature put out by Chiropractors, and to confer with Secretary John Farrell of the State Society for procedure thereafter. Dr. John Farrell had previously agreed to add any such materials from the legal advisors of the State Society.

Three Communications were considered:

(1) A letter from Stephen J. Hoye, M.D., Secretary of the Rhode Island Medical Society, requested that each District Medical Society establish a Utilization Review Committee for Extended Care Facilities. Authorization was unanimously voted to have such Committee appointed by the President. Dr. Laskey then designated Doctors Cerrito, Manganaro and O'Brien as members of this Committee.

(2) A letter sent to the Society by the Washington County Public Health Nursing Project Advisory Committee was read and discussed, briefly. The unsigned letter apparently originated from Lois G. Gray, Secretary of that Committee. A request for the President to name Delegates to the meetings of this Department of Health-Sponsored Group was accepted. Doctor McGrath was appointed by Doctor Laskey to be the Delegate from Washington County Medical Society.

(3) A lengthy letter from R. I. Director of Welfare Augustine Riccio was next considered. It requested that the Society establish fees for the services of its members. It was agreed that Mr. Riccio be informed that "It has not been the policy of the Washington County Medical Society to establish fees for the membership of the Society, and consequently comment on fee schedule is withheld."

Thereafter, an extended discussion developed about methods of payment for services supplied under Title XIX of the National Medicare Act. Doctor Morrone suggested that Society members could be best guided by conforming to the AMA directives about direct dealing with the patient. A motion was made by Dr. Manganaro and seconded by Dr. Ruisi that the Society members adopt di-

rect billing of patients for Medical Services. The motion was carried by voice vote.

A motion was made by Dr. Ruisi authorizing the President to arrange a meeting devoted exclusively to the development within Medicare. Motion carried by voice vote after being seconded by Dr. O'Brien.

The Nominating Committee presented the following list of Nominees for Officers of the Society for the 1967-1968 period:

President: Dr. John J. Walsh, Jr.

1st Vice-President: Dr. John D. Pinto

2nd Vice-President: Dr. Erwin Siegmund

Secretary: Dr. Louis LaPere

Delegates: Drs. F. Bruno Agnelli, James A.

McGrath, Joseph L. Ruisi

Councillor: Dr. Richard J. Kraemer

Auditor: Dr. Ziang Tsien Tang

Censors: Drs. Clifford S. Hathaway, Gordon E. Menzies and Frederick Eckel

Executive Committee: Drs. Attilio L. Manganaro, John P. Jones and Pasquale J. Celestino

Since there were no further nominations, and after designated approval by members present, the Secretary was authorized to cast one vote for the entire slate.

Dr. Laskey then excused himself stating that because of his recent recovery from a serious illness, he considered it inadvisable to overexert.

The Speaker, Dr. Francis B. Sargent, Chairman of the Mediation Committee of the R. I. Medical Society, was then introduced by the Secretary. Dr. Sargent then spoke of "Experiences with Malpractice Proceedings." The Speaker's vast experience and unparalleled fund of information within this field made the address one of the most informative and pertinent ever given before the Membership.

The meeting was adjourned at 1:10 p.m.

Respectfully submitted,

JAMES A. MCGRATH, M.D.

Secretary

CONGRESS ON THE SOCIO-ECONOMICS OF HEALTH CARE

(Continued from Page 362)

which have shut down their emergency units will then economize and be in a better position to insure and provide other services on a non-emergency basis.

THE FANTASTIC AND UNBELIEVABLE IN MEDICINE

Case 1. A middle aged foundry laborer did heavy work up to a few hours before seeking help. He came not for pain or discomfort, but because he had not voided urine for 3 days. The entire genitourinary tract was a mass of calcified tubercular tissue, so unusual as to deserve preservation in the pathologic museum.

Case 3. A child is hit by a horseshoe. The depressed parietal bone is lifted, and the child goes home cured.

Case 5. A child falls from a tree onto a pointed pole which enters his lumbar region, emerging at the perineum. The father extracts the pole. The child is well in a few days.

Case 7. A 10-year-old child was struck in the head by the door handle of an automobile proceeding in the opposite direction. There was no difficulty for two two months. Later he was hospitalized for transient headaches. X-ray studies showed a complete automobile door handle inside his skull. Recovery followed its removal.

Case 8. A child is playing on a metal fence. A spike penetrated his skull. The fishhook-like end

had to be sawed off in order to pull out the remainder. The patient was well in a few days.

Case 9. A middle aged single woman is admitted to the hospital with a diagnosis of gastrocolic fistula. Evacuation is per os, not per anum. The barium meal advances normally until it reaches the rectum and then, before the eyes of the amazed radiologist, after a quick antiperistaltic motion it is evacuated in toto per os.

Case 10. A middle aged woman had been operated on a few years before at which time a trans-sacral amputation of the rectum was done. She slipped on a staircase, falling on her sacrum. The colon had herniated through the sacral defect. The hernial sac burst, and her intestines were hanging out. She recovered in a few days after closure.

In many instances human resistance is underestimated.

... Romani, A., L'eccezionale e l'inverosimile in clinica, Giornale Veneto di Scienze Mediche, 21:49, (Jan.-Feb.) 1966. Reminiscences of a surgeon.

(Submitted by Francesco Ronchese, M.D.)



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1. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. 65:311 (Feb.) 1953.



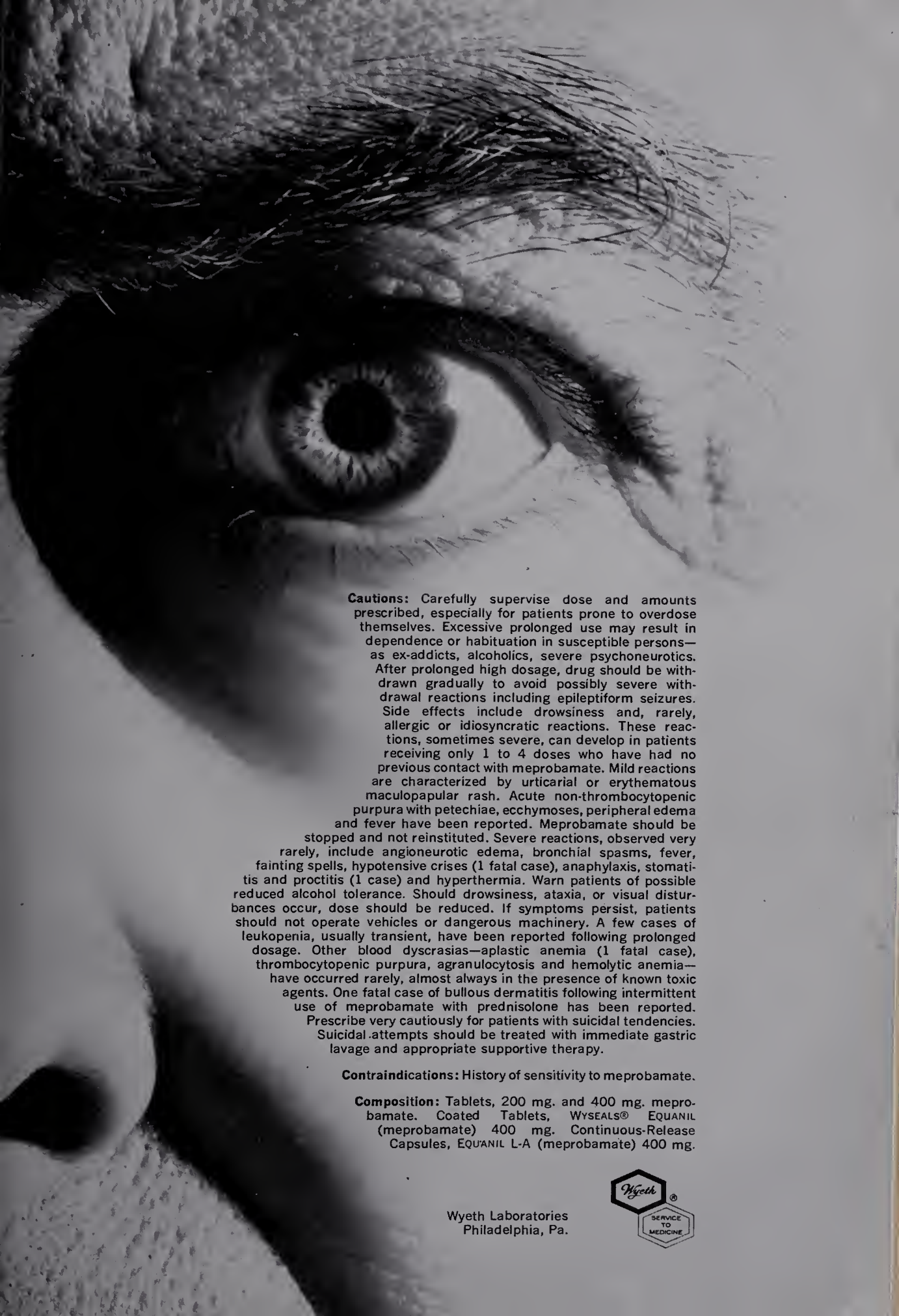
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Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics.

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Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported.

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Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy.

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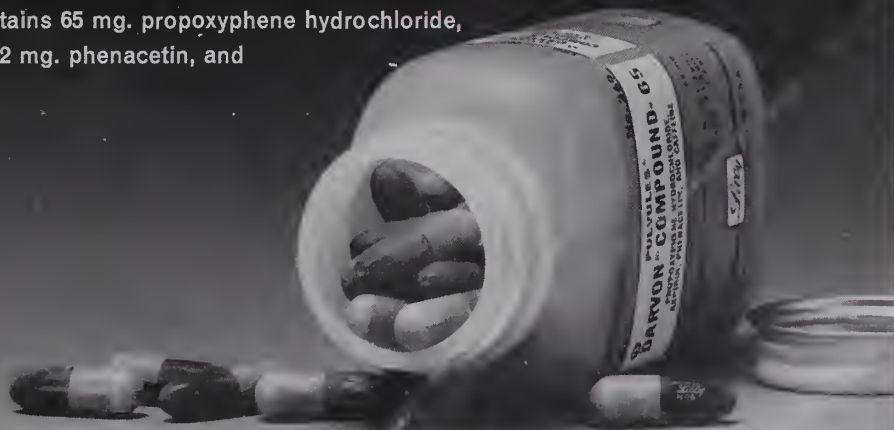
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has an atropine-like action which should be considered when prescribing diphenhydramine hydrochloride. **ADVERSE REACTIONS:** Side effects are generally mild and may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, blurring of vision, vertigo, headache, muscular aching, thickening of bronchial secretions, restlessness, and insomnia have been reported. Allergic reactions may occur.

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No untoward side effects have been reported to date.

Literature on indications and dosage available on request.

References:

- (1) Siver, R. H.: CMD, 21:109, September 1954. (2) Frykman, H. H.: Minn. Med., 38:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., 51:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., 15:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., 58:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, 25:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. L.: Oral Surg., Oral Med. & Oral Path., 20:591-593, November 1965.

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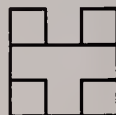
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DISTRICT MEDICAL SOCIETY MEETINGS

PAWTUCKET MEDICAL ASSOCIATION

A special meeting of the Pawtucket Medical Association was held on Wednesday, February 8, 1967, in the Richardson Lecture Room of Memorial Hospital.

Dr. Robert Fortin called the meeting to order at 11:15 a.m.

There were 31 members present.

The reading of the minutes of the two (2) previous regular monthly meetings was undertaken and both minutes were accepted as read by unanimous consent.

Dr. Frank Hanley gave a report of the Medicare Committee of the Association which had discussed the society's position on the newly implemented Medicaid ("Title XIX"). The recommendation of this Committee was that each physician should individually decide his acceptance or rejection of patients under this new law. No official medical association stand was offered.

Dr. Alton Paull briefly reviewed the details of Medicaid and Medicare as applied in the State of Rhode Island. The essential point was that the State would not pick up the 20 per cent difference accepted fee as paid by the Federal Government under Medicare and the total bill rendered to a patient.

Bylaws Committee

The assembled members voted individually on the suggested bylaws revision as presented for this special meeting.

Motion by Dr. George McClellan —

"Before the Bylaws revision should be voted upon, legal advice should be obtained by the Association for clearer definition of Article I the Pawtucket Medical Constitution and its companion article of the State Constitution."

The motion was seconded by Dr. Eugene Gaudet. Following considerable discussion, the motion was defeated.

The Bylaws Committee will publish for the annual meeting those revisions which were recommended at this special meeting. According to the Constitution, the alteration of bylaws shall take place at a regular meeting.

There being no further business, the meeting was adjourned at 12:45 p.m.

Respectively submitted,
PAUL J. M. HEALEY, M.D.
Secretary

* * *

The Annual Meeting of the Pawtucket Medical Association was held on Monday, March 22, 1967 in the Nurses' Auditorium of the Memorial Hospital, Pawtucket, Rhode Island.

The meeting was called to order by the President, Dr. Robert Fortin, at 11:00 a.m.

The minutes of the previous monthly meeting were read and approved as were the minutes of the 1966 Annual Meeting.

Old Business

The special meeting which had been held by the Association on February 8, 1967, concerning the change in the by-laws of the Pawtucket Medical Association was discussed. A motion was made by Dr. Earl Mara and seconded by Dr. John Cunningham that the meeting should be void insofar as the business of the meeting had not been restricted to the special topics assigned. In addition it was felt that sufficient advance notice had not been available to the membership. This motion was carried unanimously. The Chair recommended that the problem of the by-laws revision should be taken up at the next regular monthly meeting.

New Business

Dr. Thomas J. Martin was appointed by the Chair to communicate with Dr. Earl Kelly and Dr. Fred Webster extending to them the Association's best wishes and desire that these physicians could be present with us on the evening of the Annual Dinner Dance.

Annual Address

Dr. Robert Fortin, at this time, presented his annual address to the Society in which he expressed his sincere appreciation for a "Good Year." In his address he stressed the importance of the local medical society and its inter-relationship with the Federal Government. Dr. Fortin noted the growing shortage of physicians in the community as a major problem. He suggested that changes may be necessary in the future in the basic structure of the society: An executive secretary to the Medical Association whose services have been offered would be a worthy addition to the administrative structure of the Association; a speakers' bureau should be formed to maintain a better informative source for local physicians; communication between physicians at all levels, national, state and local should be improved. In addition, Dr. Fortin pointed out that the practice of medicine in the Blackstone Valley was undergoing a progressive but continuous

(Continued on Page 376)

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED
COMBINATION
OF THE MOST WIDELY
USED ANTACIDS—
FOR RAPID
NEUTRALIZATION.
PLUS SIMETHICONE—
TO CONTROL
THE FACTOR WHICH
ANTACIDS ALONE
CANNOT INFLUENCE.

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- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

Stuart

PAWTUCKET MEDICAL ASSN.

(Continued from Page 374)

change. This has been set in motion principally by the association of Brown University and the Pawtucket Memorial Hospital. Further change is to be expected with the eventual appointment of full-time chiefs of service in the Hospital. All physicians should be encouraged to take part in the harmonious development of the University-local physician relationship, in the avoidance of the "Town-Gown Syndrome."

Slate of Officers

The Nominating Committee of the Association under the chairmanship of Dr. Edward Butler offered the following slate of offices for the Pawtucket Medical Association for the year 1967-68:

President Dr. Robert E. Newhouse
 Vice President Dr. Paul J. M. Healey
 Secretary Dr. Alexander A. Jaworski
 Treasurer Dr. Edmund Billings

Dr. John Cunningham and Dr. Stephen J. Hoyer remain Councilor and Alternate Councilor respectively of the Association. The Delegates comprise Dr. Edmund Billings, Dr. Robert C. Hayes, Dr. Earl F. Kelly, Dr. Earl J. Mara and Dr. Alton M. Paull. The Standing Committee comprises Dr.

Reginald Boucher, Dr. Bancel Schiff, Dr. Philip Lappin, Dr. Nathan Sonkin and Dr. Robert Fortin.

By unanimous vote of the membership, the new officers were elected to the Association.

Dr. Philip J. Lappin escorted the incoming President, Dr. Robert E. Newhouse, to the podium. Dr. Newhouse expressed his appreciation for the newly elected office and his keen desire to continue with the progress of the Society.

Dr. John Cunningham proposed a meeting of the newly elected officers, Standing Committee, Councilors and Delegates that these physicians might outline a master plan for the new year in the Society.

There being no further business, a motion for adjournment was made and passed.

Respectfully submitted,

PAUL J. M. HEALEY, M.D.

Secretary

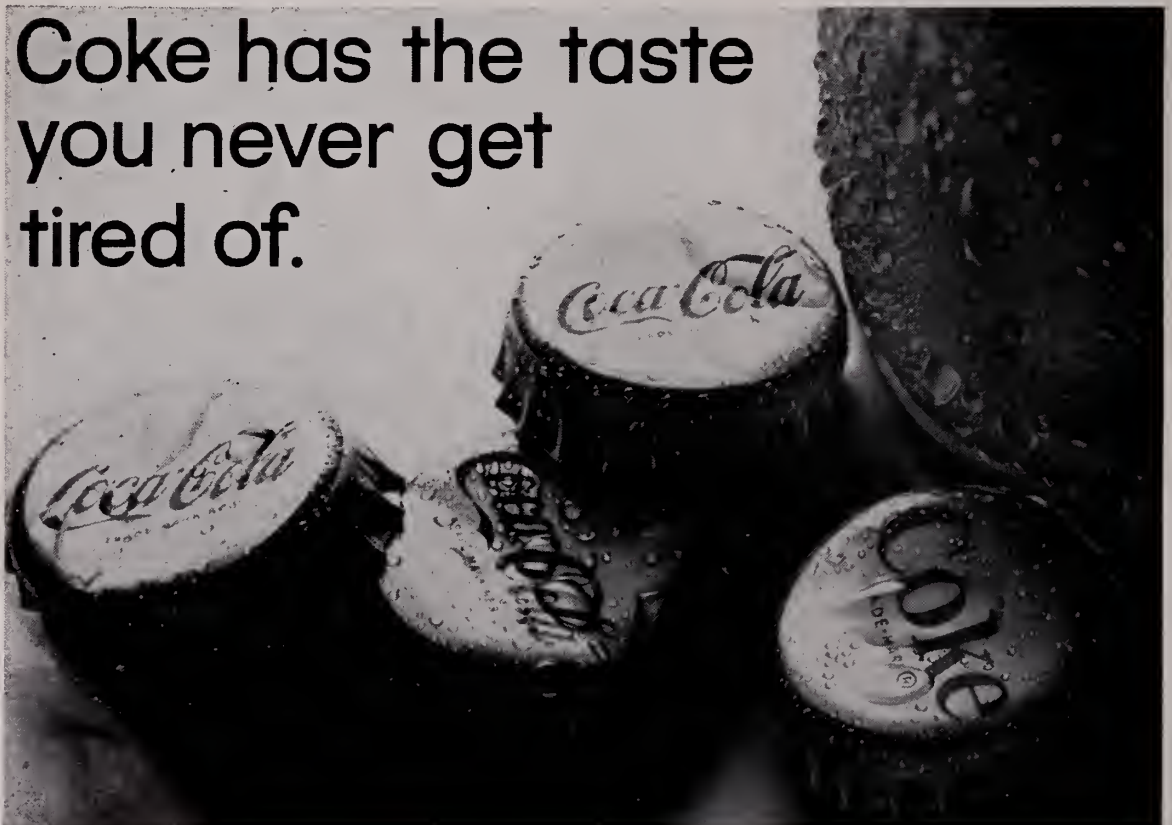
* * *

PROVIDENCE MEDICAL ASSOCIATION

A meeting of the Providence Medical Association was held at the Rhode Island Medical Society Library on Monday, March 6, 1967. The meeting was called to order by the President, Dr. Gustavo A. Motta, at 8:30 p.m.

(Continued on Page 378)

**Coke has the taste
you never get
tired of.**



A black silhouette of a person's head and torso is shown in profile, facing right. Inside the silhouette, a white diagram of the human respiratory system is visible, showing the trachea and branching bronchi. The bronchi are filled with numerous small red circles, representing the medication's effect on the lungs. The person's right hand is raised to their mouth as if taking a pill.

IN EMPHYSEMA

THE
'EASY-TO-TAKE'
AMINOPHYLLINE

Aminophylline **dura-tabs**[®]

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

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(quinidine gluconate 5 gr.)

PROVIDENCE MEDICAL ASSN.

(Continued from Page 376)

Report of the Secretary

Dr. Bertram H. Buxton, Jr., Secretary, reported as follows:

1) The Executive Committee has held one meeting during the month at which the acting medical director of Progress for Providence explained the plans of that Agency for its Neighborhood Clinics. The Committee has asked for a written report from the Agency of its planned program, and after a review of this report the Committee hopes to be in a position to make recommendations to the Association.

2) A special meeting of the Association was held on March 1 for the purpose of discussing impending Federal programs affecting the private practice of medicine. More than 80 members of the Association were in attendance at this informative session.

3) Tomorrow evening the Executive Committee for the Association will be host at a buffet dinner for the members of the General Assembly from the Greater Providence area. The purpose of this annual meeting is to enable the legislators to meet representatives of the Association and know of the views of the physicians on various proposals before the Assembly.

4) The final scientific meeting of the Associa-

tion for this Spring will be held on Monday, April 3, and the speaker will be Dr. Jerome B. Posner, assistant professor of Neurology at Cornell University. His subject will be "*Remote Effects of Cancer on the Nervous System.*"

5) Friends of the Library of Brown University invite members of this Association to an illustrated talk on "*Early American Medical Journalism: Its Contribution to Medical Science and Education*" to be given by Irving Beck at the John Hay Library, second floor, on Monday, March 13, at 8:15 p.m.

Action: A motion was made, seconded and voted that the report of the Secretary be approved.

Announcements by the President

Doctor Motta announced that the Association had lost two members by death since the February meeting, Drs. John T. Keohane and Bernard I. Sherman, and he asked the members present to stand for a moment of silent prayer in memory of these two deceased members.

* * *

Doctor Motta announced that the Standing Committees for 1967 had been appointed, and he thanks the members who had accepted assignments.

Scientific Program

Doctor Motta introduced Mr. Jerome Pollack, Associate Dean, Medical Care Planning, and Professor of Economics of Medicine, Harvard Medical School, Boston; formerly, Professor of Administrative Medicine, Columbia University; and Executive Director, Governor's (Rockefeller) Committee on Hospital Costs, who spoke on "New Programs and Policies Affecting Medical Care."

Mr. Pollack characterized medical care as a field in movement, the scope of which is increasing and broadening.

Health care has recently undergone a change of direction. The nature of the change is discernible but the extent of change is not yet determinable.

Medicare, Heart Disease, Cancer and Stroke, and Medicaid programs define the nature of the change.

The scope is still not identifiable because of the sweeping comprehensiveness of the various programs. To develop a perspective we must look at the various programs and processes and probe for future policies that may be implied.

Developing the history of the direction of medical care in this country Mr. Pollack defined the turning point as starting in 1910 to 1912 when the impact of American Medicine on the health and life of this country's citizens became notably more effective.

After the depression of 1932 up to 1940 only about 4 per cent of the gross national product was spent by Americans for health care.

A sudden 5-fold increase occurred after this so that by 1956 4.7 per cent of the gross national

(Continued on Page 384)

NEW . . . !

LONG-TERM DISABILITY INSURANCE

Guaranteed Renewable To Age 70 For Those Who Need Amounts In Addition To the Rhode Island Medical Society's Underlying Group Plan.

Physicians in good health under age 65, now may apply for amounts up to \$225.00 weekly, in addition to benefits now provided. Benefits payable at option of the insured for 1 year, 2 years, 5 years, 10 years, to age 70, OR FOR LIFE ! ! !

Rhode Island Physicians need not go out of Rhode Island nor purchase mail-order insurance to have the BEST in Disability Insurance! We have yet to see a mail-order or individual policy with benefits and value superior to this one.

For further information, send us your name, address, and date of birth.

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Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B — bacitracin — neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ¼ oz. with ophthalmic tip.
Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'[®]

brand

POLYMYXIN B-BACITRACIN-NEOMYCIN OINTMENT



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

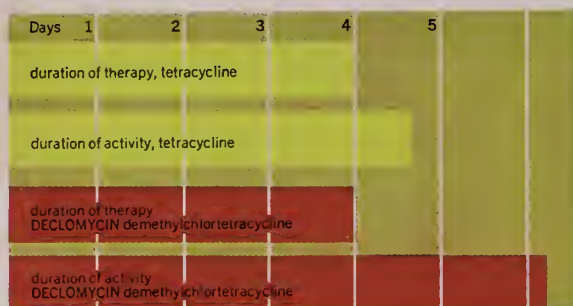
why wonder about a drug

when you know

DECLOMYCIN[®]

DEMETHYLCHLORTETRACYCLINE

produces 1-2 "extra" days' activity



1-2 "extra" days' activity
after the last dose to protect against relapse

one 300 mg tablet b.i.d.
OR
one 150 mg capsule q.i.d.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essen-

tial. If new infections appear, appropriate measure should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If an adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg and 75 mg of demethylchlortetracycline HCl.



For he's a jolly good fellow



But what does he think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

**to help establish
a new dietary pattern**

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.



LEDERLE LABORATORIES

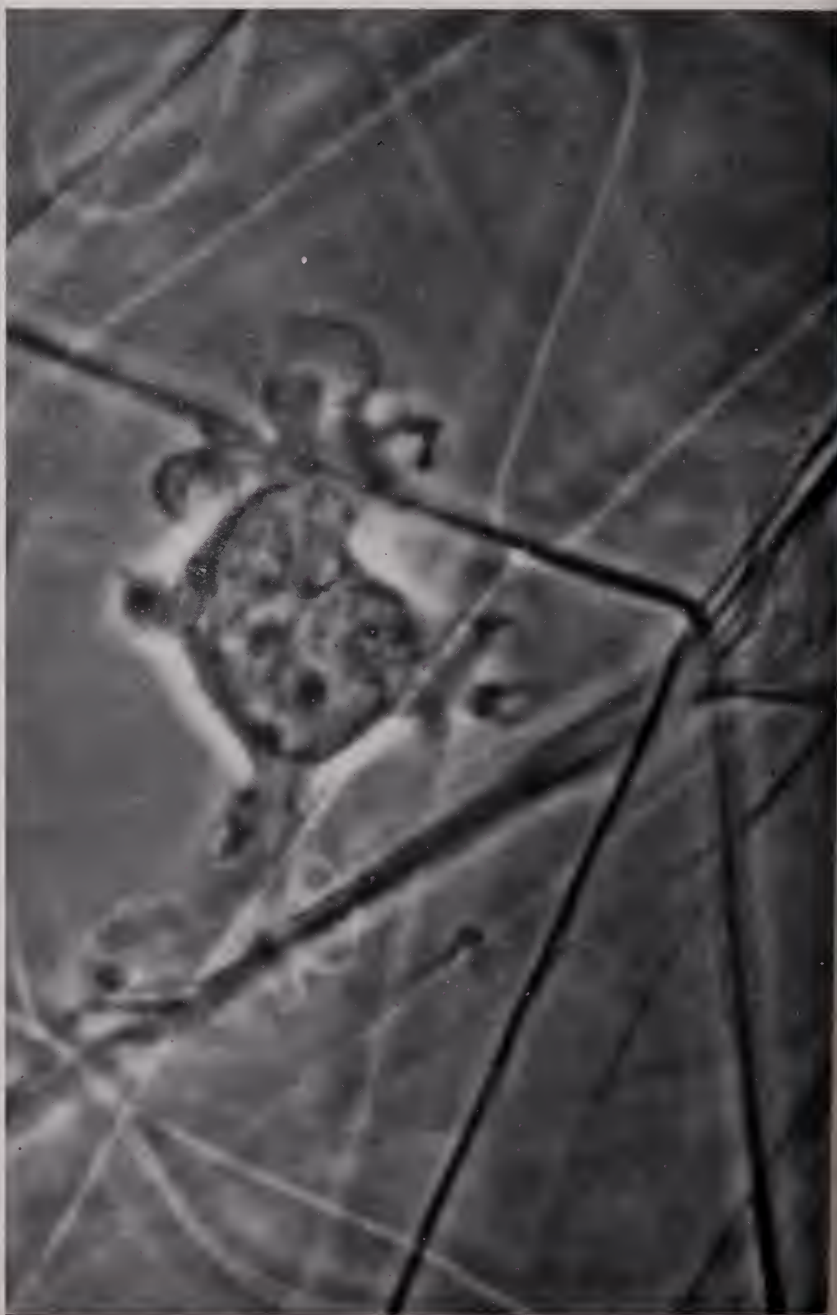
A Division of American Cyanamid Company,
Pearl River, New York

INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

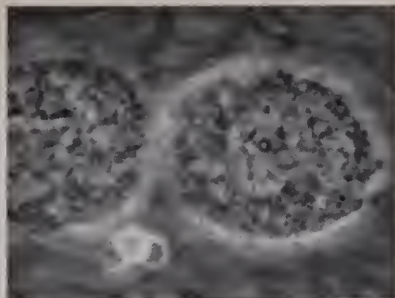


Visual evidence of how corticosteroids influence the inflammatory reaction

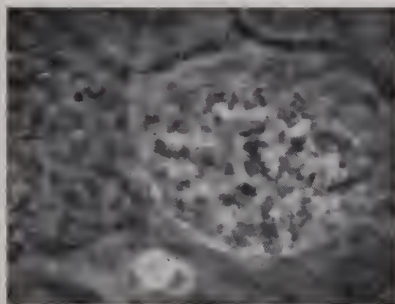
Working with phase-contrast cine-micrography on living animal tissue, Doctors Thomas F Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



Phase-contrast microscopy showing mast cell before injury.



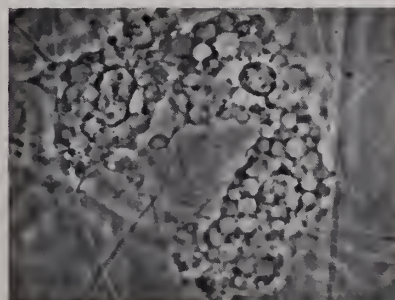
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid — Synalar (fluocinolone acetonide) — the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.

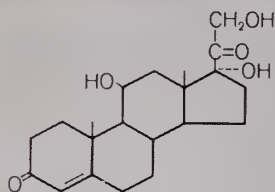


In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

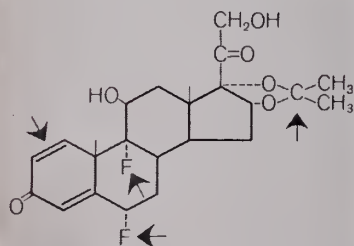
*A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more corticosteroid. And it can often do it more effectively.



Hydrocortisone

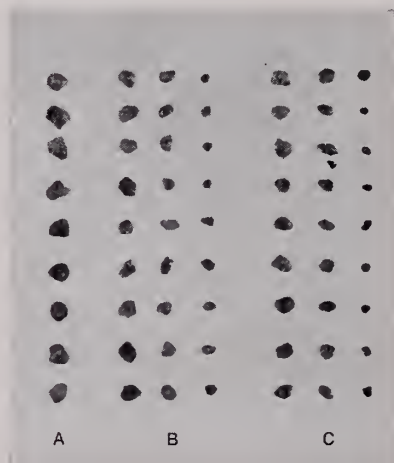


Fluocinolone Acetonide (Synalar)

- a double bond between carbons 1 and 2
- fluorine substitutions at both the 6- α and the 9- α positions
- the addition of the acetonide at the 16- α , 17- α positions, thus providing one of the most potent topical corticosteroids available.

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY¹⁻⁴ is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B— injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C— injected with fluocinolone acetonide—but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY¹⁻⁴ also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. **PRECAUTIONS:** Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for pro-

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

longed periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. **SIDE EFFECTS:** Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. *Ann NY Acad Sci* 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. *Proc Soc Exp Biol Med* 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: *Methods of hormone research*, New York, Academic Press, 1964. vol. III, pp. 234-280. 4. Gubersky, V. R.: To be published.

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corticosteroids available

Rapid and predictable
antiinflammatory and
antipruritic activity

Results often comparable to
those of systemic corticosteroids
with fewer hazards

PROVIDENCE MEDICAL ASSN

(Continued from Page 378)

product was spent on health. This had increased to 6 per cent (43-billion dollars) by June 1966.

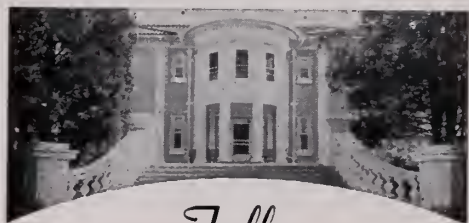
This expenditure is not inordinately high compared with some other countries. Canada's expenditure on health is presently 6.5 per cent of the G.N.P. and it is likely that the United States will be spending from 7 to 8 per cent of the G.N.P. before long.

As more people become involved in this health risk sharing thus spreading the cost over many persons, there may well be a demand for more economy, as well as justification of medical costs and a call for decreased duplication, with more practical utilizations of expensive medical facilities and technics.

Patient-doctor contacts have doubled and hospitalization has increased by 100 per cent in the past 20 years. Methods of payments for medical services have changed because of voluntary and other types of insurance plans. In 1940, 78 per cent of medical costs were paid by the patient whereas in 1950 67 per cent of medical bills were paid by patients. In 1966, 50 per cent of the costs were paid by the patient.

From 1950 to 1964, 79 per cent of the money spent for medical care came from the private sector and about 21 per cent from the government.

Since 1965 there has been a new turning point.



Fuller Memorial Sanitarium

Located on Rt. 1
South Attleboro, Massachusetts

A modern non-profit hospital for the care and treatment of nervous and emotional disorders as well as long term geriatric problems.

Physical, neurological psychiatric and psychological examinations.

Modern recognized psychiatric therapies.

A pleasant homelike atmosphere in a beautiful and conveniently located institution.

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Special Rates for Long Term Care

The American people accepted the fact that they were receiving good medical care and wished to assure its continuance by making it economically feasible.

Mr. Pollack stated that a great deal of the debate prior to Medicare passage was irrelevant to its current significance, but dealt a great deal more with what it might become.

As soon as the decision had been made to enact Medicare legislation, sudden decisions were called for in matters that had not yet been fully discussed and a much broader health program evolved than had been at first envisioned.

The motivation of Medicare legislation was to protect peoples' savings in an affluent society. Part A was tied to Social Security while Part B was financed partly by the individual and partly by the general funds of the national treasury.

There was a reliance on the usual channels for the providing of health care and the usual channels for payment were also presumed and utilized.

This would seem to indicate that there was no rejection of existing health-providing facilities or methods.

There are certain standards which have been set which should improve medical care in the long run especially in the extended care facilities and rehabilitation.

Medicare is not "socialized medicine" but merely a method of "social financing."

There will be a mandatory review within the individual hospitals of certain patient-doctor relationships and medical decisions.

As a companion measure to Medicare, Congress reformed the area of medical assistance by passing Medicaid. They thus developed a conformity of high standards for medical care for the indigent.

New York's implementation of Medicare has raised sober second thoughts as to how liberal medical care payments should be.

The Congress is attempting to plan and organize Medicare and Medicaid legislation to make it more applicable to all those needing it.

The medical profession and the medical schools have a great responsibility and opportunity to lead the way in the reorganization of applied medical knowledge to make it more available to all people.

At the moment there is a real partnership in the provision of health care between the public and private sector. With the shift from medical research to medical care, public funds will provide up one-third of all medical care costs.

How far will the government go and in what direction from its present health care involvement? There are already legislative proposals which aim to extend Medicare to the disabled, Kiddy care and Denti care.

The private sector represented by the voluntary

(Continued on Page 386)



Vacation trip....

Motion sickness?



This time it'll be different. Emetrol taken before the trip begins will usually prevent nausea and vomiting. Emetrol is effective and safe...most helpful where safety is most important. It acts locally—not systemically.



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Wherever you go,
forget your telephone
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MEDICAL BUREAU
of the
Providence Medical Association

PROVIDENCE MEDICAL ASSN.

(Continued from Page 384)

health insurance plans are being confronted with a great challenge. In New York a state insurance program is being considered as an alternative to the voluntary health insurance programs.

It is clear that the voluntary insurance plans must assume a larger role in developing new broader programs to cover most health costs. These plans must extend benefits that will match or surpass those offered by government or other involuntary programs.

Mr. Pollack concluded by expressing his belief that the American people had a genuine desire to maintain a partnership between the public and private sectors in the health care area.

Adjournment

The meeting was adjourned at 9:05 p.m.

Attendance 87

Collation was served

Respectfully submitted,
BERTRAM H. BUXTON, JR., M.D.
Secretary

* * *

A regular meeting of the Providence Medical Association was held at the Rhode Island Medical Society Library on Monday, April 3, 1967. The meeting was called to order by the President, Dr. Gustavo A. Motta, at 8:30 p.m.

Minutes of March Meeting

The minutes of the March meeting of the Association were not read, but the President stated they would be published in the Rhode Island Medical Journal.

Report of the Secretary

Dr. Bertram H. Buxton, Jr., Secretary, reported as follows:

"The Executive Committee has approved of the transfer of membership to another district association by one member, and it has accepted resignations from two members who have moved out of the Providence district.

"The Committee has polled the nursing and convalescent homes in the district and has found nearly all qualified for the care of Medicare beneficiaries have established their own utilization review committee, and therefore the Association will not at this time establish such a committee for extended care facilities, but will be prepared to do so upon request.

"A successful dinner-meeting was held by the Association for the discussion of state legislation with the members of the General Assembly from the Greater Providence area.

"The Executive Committee approved of the plans for the Annual Golf Tournament and Dinner to be held on June 29 at a place and time to be determined by the Entertainment Committee.

"The Executive Committee voted to table the matter of membership in the Congress of County Medical Societies.

"The Committee heard a preliminary report on the possible plan for a multiphasic screening program at Rhode Island Hospital.

"The Committee met twice with the Acting Medical Director of Progress for Providence, Inc., and it authorized the President to appoint a subcommittee of the Executive Committee to meet with the Agency to study and determine policies regarding the proposed neighborhood health centers.

"*Applicants for Membership.* The Executive Committee has reviewed and it has approved of the applications for active membership of the following physicians:

Herbert P. Constantine, M.D., of Providence
Joseph A. Izzi, M.D., of Providence
Aman U. Khan, M.D., of East Providence
Herbert Rakatansky, M.D., of Providence
Robert J. Touloukian, M.D., of Providence

Action: A motion was made, seconded and voted that the applicants recommended for active membership be elected."

* * *

Announcements by the President

Doctor Motta made the following announcements:

"This is the final meeting of the Association for the Spring season, and our next scheduled scientific lecture will be the first Monday in October.

"However, I call to your attention the fine program of the Rhode Island Medical Society for its 156th Annual Assembly.

"On Tuesday evening, May 9, the Chapin Oration will be given in the ballroom of the Sheraton Biltmore Hotel by Dr. Howard Rusk of New York City.

"All day Wednesday, May 10, will witness clinical lectures in the ballroom at the hotel with the Annual Dinner in the evening.

"Complete details of this program will be sent to every member, and we urge you to support this fine meeting.

* * *

"The House of Delegates of the Society will meet in this auditorium the evening of April 19, and any member of the Association interested in attending the session is welcome."

Scientific Program

Doctor Motta introduced Dr. Jerome B. Posner of New York City, Assistant Professor of Neurology at Cornell Medical College, and Assistant Attending Neurologist at New York Hospital, who spoke on "Remote Effects of Cancer on the Nervous System."

(Continued on Page 390)



*"When I couldn't even smell corned beef and cabbage,
I decided it was time for you, Doc."*

Maybe he doesn't know when he's well off. But you might want to prescribe long-acting Novahistine LP anyway.

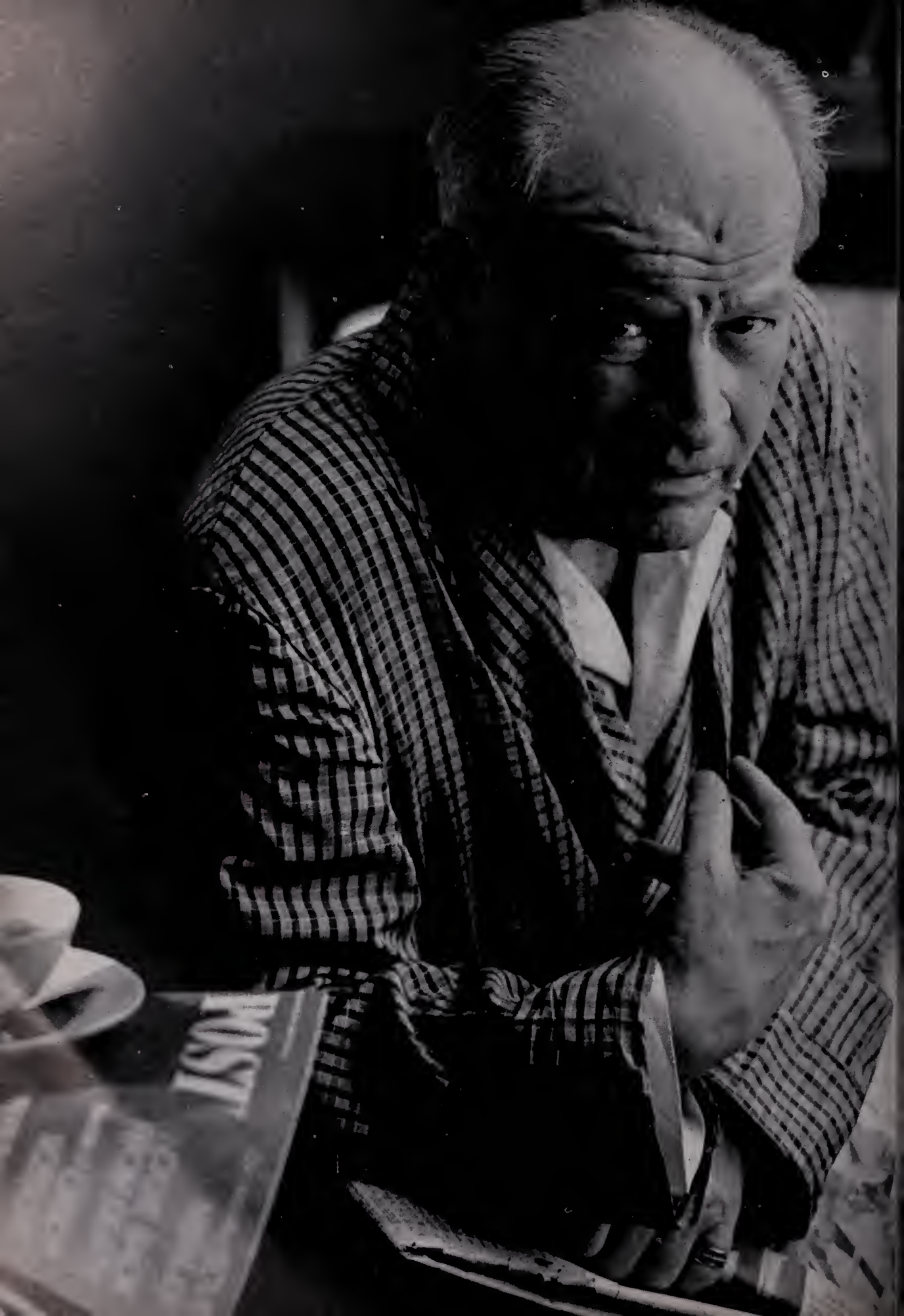
Two tablets in the morning and two in the evening will usually provide day and night relief by helping to clear congested air passages for normal, free breathing. Novahistine LP is formulated to provide continuous therapeutic effect for 8 to 12 hours. The decongestant ingredients help restore normal mucus secretion and ciliary activity—physiologic defenses against infection of the respiratory tract.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

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I'm supposed to get up and do things?

With my heart?

It's entirely natural—and may even be desirable—for the cardiovascular patient to be somewhat anxious about himself.

But when anxiety leads to unreasonable self-imposed limitations and restrictions . . . when it aggravates cardiovascular symptoms . . . when it interferes with restful sleep, measures to help alleviate the anxiety are probably in order.

One measure, of course, is reassurance. Another, adjunctive measure, is EQUANIL (meprobamate).

Over a decade of experience has shown that EQUANIL (meprobamate) is generally well tolerated as well as effective. Side effects are usually limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose

should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WySEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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to help relieve anxiety and tension occurring
alone or secondary to organic disease

Equanil[®]
(meprobamate)



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WE HERE AT THE HOPKINS MEDICAL LABORATORY TAKE GREAT PLEASURE IN ANNOUNCING THAT WE MEET ALL THE REQUIREMENTS SET FORTH BY THE DEPARTMENT OF H.E.W.

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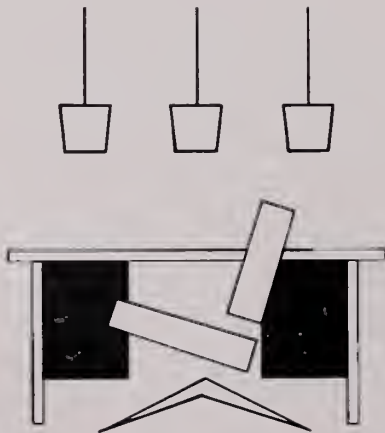
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PROVIDENCE MEDICAL ASSN.

(Continued from Page 386)

Dr. Posner presented a series of provocative, albeit tenuous, interrelationships between malignancy and the neurological and muscular systems, exclusive of those due to metastatic involvement.

Several mechanisms have been suggested to explain these remote effects. A hypothetical toxin elaborated by cancer cells has been implicated but so far not isolated. It has been suggested that metabolites essential for proper neuromuscular function are in short supply due to competitive demand by the malignant tissue. There is also evidence that certain cancer cells develop the ability to produce hormonal substances which may remotely affect certain neuromuscular responses. Finally it has been suggested that cancer diminishes the nervous and muscular systems' immunity to bacteria, viruses or fungi.

The types of neural and muscular effects secondary to non-metastatic malignancy are classified as follows:

- I. Myopathies — manifested by muscular weakness.
- II. Neuropathies — involving the peripheral nerves.
- III. Myelopathies — involving the spinal cord.
- IV. Encephalopathies — involving the cerebrum causing dementia or the the brain stem and cerebellum causing ataxia and gait difficulties.
- V. Infection — causing meningitis or encephalitis.

There are several types of myopathies associated with non-metastatic malignancy. One is caused by excess ACTH production by atypical cancer cells (oat cell cancer of the lung). Then there are polymyopathies or polymyosites with symmetrical weakness and wasting in the muscles of the shoulder or pelvic girdle. Often rather typical skin lesions may be associated with these disturbances. Muscle biopsy may show chronic inflammatory cell infiltration and certain serum enzymes may be disturbed. Electro myography may show decreased amplitudes or increased diphasic impulses. In males over 50 years old there is a greater than 50 per cent chance of patients with these types of myopathies having cancer. Only a 15 per cent chance is recorded when men and women of all ages with these myopathies are included.

The final myopathic disorder is one of neuromuscular transmission which may take the form of myasthenic myopathy or myasthenia gravis. The former is almost always associated with intrathoracic malignancy. This disorder is more commonly found in males over 40 years old and the legs are most frequently involved. The electro-

myogram of the muscle afflicted with myasthenic myopathy discloses a gradual attainment of maximal contraction with eventual gradual "falling off." The normal muscle as well as the muscle afflicted with true myasthenia gravis reaches maximal contraction immediately. In myasthenia gravis after a brief interval the gradual "falling off" then occurs.

In those patients with myasthenia myopathy when an associated cancer is extirpated the neuromuscular syndrome may improve.

In the neuropathy group the peripheral sensory and motor nerves are involved and there is often an associated myopathy. The sensory neuropathy is of gradual onset beginning with "pins and needles." The relationship of neuropathy with malignancy was first discussed in 1948 by Denny-Brown and it is the only form of the neurologic-cancer syndrome to which relatively specific antibodies have been found.

Other forms of neuropathy are the endocrine and nutritional polyneuropathies which can be associated with a proximal myopathy.

Seven per cent of patients with known cancer have myopathies, neuropathies or both. For some types of cancer the incidence is as high as 16 per cent. The myelopathies associated with cancer may be a dorso-lateral sclerosis, an amyotrophic lateral sclerosis, or rarely an acute or subacute transverse myelopathy. Sixteen per cent of the amyotrophic lateral sclerosis group had a demonstrable cancer. This syndrome consists of weakness, atrophy and fasciculations of hand and shoulder muscles, hypoaffective reflexes and a bilateral positive Babinski. It is different from the classical neurologic syndrome because of its prolonged course and its tendency to reach a plateau. The cerebral encephalopathies associated with cancer may be multifocal leukocephalopathy, degenerative encephalopathy, or metabolic encephalopathy, associated with vitamin deficiencies and hypocalcemia. The brain stem and cerebellar disorders may be of the subacute type taking 2-6 weeks for development of the full clinical picture of ataxia, dysarthria, nystagmus, dysphagia, myotonia and dementia. In seven cases in Dr. Posner's series the neoplasm was discovered before the degenerative change was noted. The central nervous system disease was noted first in 10 cases. The interval between the diagnosis of the neurological disorder and the neoplasm varied between 2 and 36 months. In the female if the gastrointestinal tract and lung can be ruled out, the ovary is often the unsuspected site of the hidden neoplasm.

Nervous system infections associated with malignancy can be viral causing multifocal leukoencepha-

(Concluded on Page 395)



When eating fads of teens or tots Lead to a sudden case of "trots"

Parepectolin for quick relief of acute diarrhea
... soothes colicky pain with paregoric*
... consolidates fluid stools with pectin
... adsorbs irritants with kaolin,
and protects intestinal mucosa

In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.



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Each fluid ounce of creamy white suspension contains:

*Paregoric (equivalent) (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.

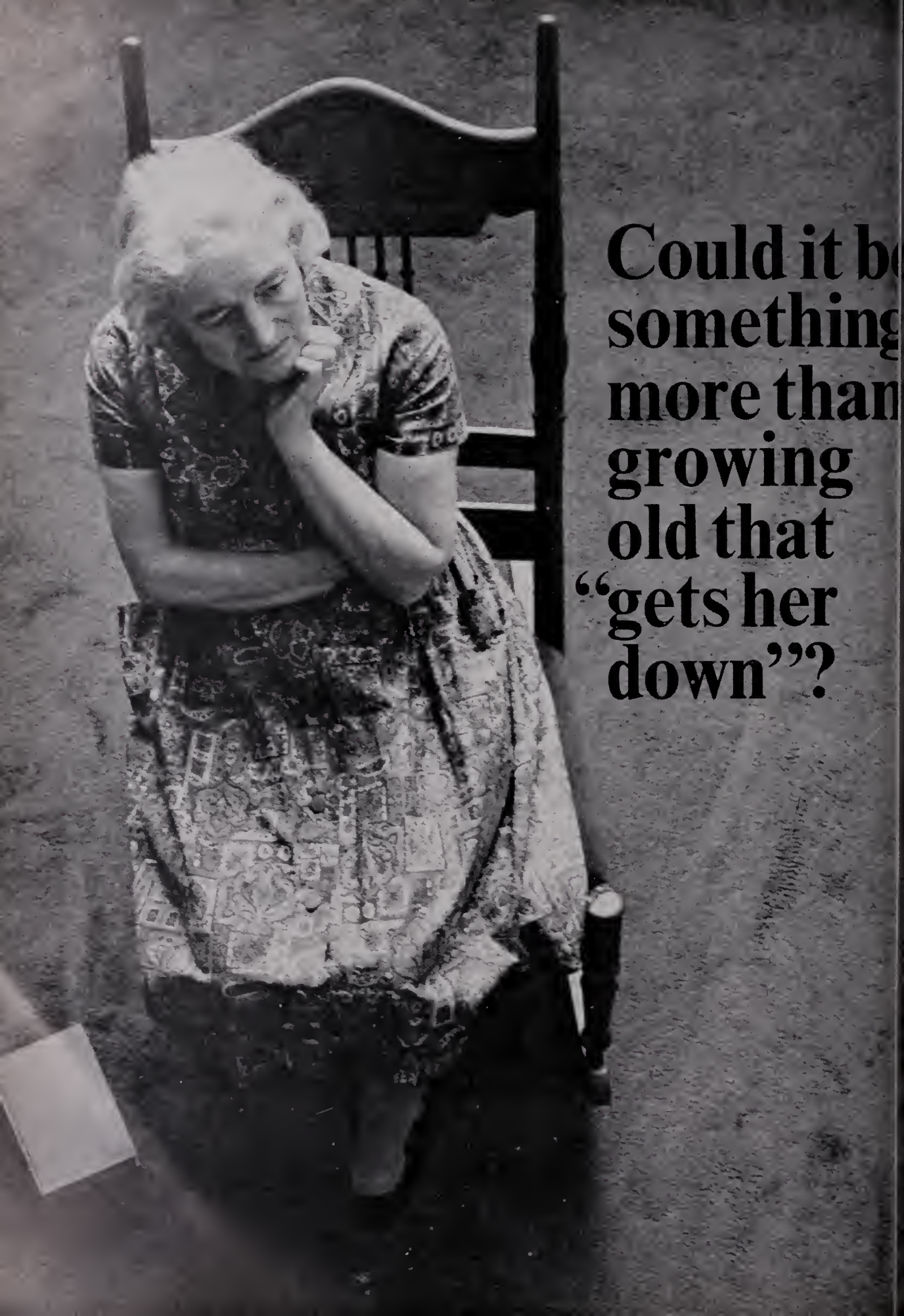
warning: may be habit forming

Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)

Usual Children's Dose: One or two teaspoonfuls three times daily.



WILLIAM H. RORER, INC.
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**Could it be
something
more than
growing
old that
“gets her
down”?**

Mild mood depression, poor appetite, little interest in the present or future. Does this picture mean that she's giving in to functional fatigue?

When functional fatigue is part of her problem, Alertonic can help counteract accompanying apathy and inertia. It helps lift mood, stimulate appetite, and establish new interest in daily life.

Pleasant-tasting Alertonic combines pipradrol hydrochloride—a gentle cerebral stimulant—with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Especially in the aging patient, nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding, and encouragement. Between visits, however, your prescription for Alertonic can help keep your patient from giving in to functional fatigue.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals ...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Available only on prescription
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Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%, pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B₁) (10 MDR*), 10 mg.; riboflavin (vitamin B₂) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B₆), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.

†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

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THE WASHINGTON SCENE



A Summary Report Prepared by the Washington Office of the American Medical Association

The American Medical Association proposed that Congress set up a National Commission on Health Resources and Medical Manpower with broad powers to supervise the drafting of physicians for military service.

The AMA recommendation was presented by Dr. Albert H. Echwichtenberg, chairman of the AMA Council on National Security, at a Senate Armed Services Committee hearing on S. 1432 which would provide for a four-year extension of the present draft law expiring June 30.

Other AMA recommendations for modification of the doctor draft program included:

- Expansion of the physician draft pool to include women doctors.

- Making subject to draft call foreign physicians under 35 years of age, with permanent visas or who have subsequently become citizens, and who may not be subject to call because they were not deferred from induction while under age 26.

- Limiting credit for fulfillment of the draft obligation to only service performed in the armed services. (Under the old law, service in the Public Health could satisfy a physician's obligation for active military duty.)

- Routine transfer, upon completion of an internship, of the jurisdiction of physicians to the local draft board serving the area in which the physician is engaged in training or practice.

- Changes in the pay and promotion policies for military physicians designed to increase the retention of career military physicians.

"Our primary recommendation . . . is the creation of a National Commission on Health Resources and Medical Manpower," Dr. Schwichtenberg said. "This Commission would replace and be responsible for the functions of the present National Advisory Committee and the Health Resources Advisory Committee. This new Commission, under the direction of the President, would have the responsibility of maintaining a proper balance of

health personnel, within existing resources, among the Armed Forces, other Government agencies, and the civilian population. Requests of the Secretary of Defense for health manpower in the military would establish for the Selective Service System criteria for classifying, reclassifying and determining the order of selection for health personnel. Under this proposal, the present State Advisory Committees would be redesignated as State Health Manpower Committees, whose activities would be coordinated by the National Commission. It is further recommended that the Commission should be constituted from among persons of outstanding national reputation in the health-care fields, and its composition should include substantial representation from physicians in private practice."

* * *

The National Highway Agency announced tentative standards for emergency medical services provided for persons injured in traffic accidents.

The federal standards give the states broad authority in implementation and also are subject to comment by the states before they become final. The state programs must be in full operation before Jan. 1, 1969, or a state could lose up to 10 per cent of its allotted federal highway construction funds.

Although the federal standards apply only to traffic accidents, they are expected to necessarily set a pattern for emergency medical services generally.

Dr. William Haddon, Jr., head of the National Highway Safety Agency, said the emergency care regulations are designed to provide quick response to accidents, sustain and prolong life through proper first aid measures, reduce the likelihood of permanent disability and prolonged hospitalization, and provide speedy transportation of accident victims to hospitals.

The federal standards would require states to:
—Appoint a full-time medical emergency serv-

(Continued on Page 395)

The
AMBAR
SCRAPBOOK
of

Obesity Oddities

FACT & LEGEND

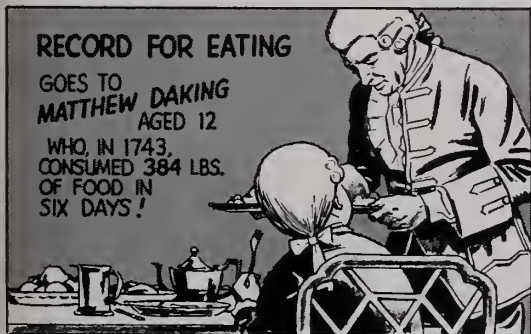
CHARLES
DICKENS'
"FAT BOY JOE"
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IS THE FIRST RECORDED CASE OF
OBESITY WITH NARCOLEPSY
DR. C. SIDNEY BURWELL COINED THE
TERM "PICKWICKIAN SYNDROME" IN 1955!



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GOES TO
MATTHEW DAKING
AGED 12
WHO, IN 1743,
CONSUMED 384 LBS.
OF FOOD IN
SIX DAYS!



THE Cost of AMBAR EXTENTABS

IS APPROXIMATELY
ONE-HALF THAT OF
OTHER LEADING
APPETITE
SUPPRESSANTS.



AN IMPORTANT FACTOR
IN LONG-TERM THERAPY!

CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg.,
phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

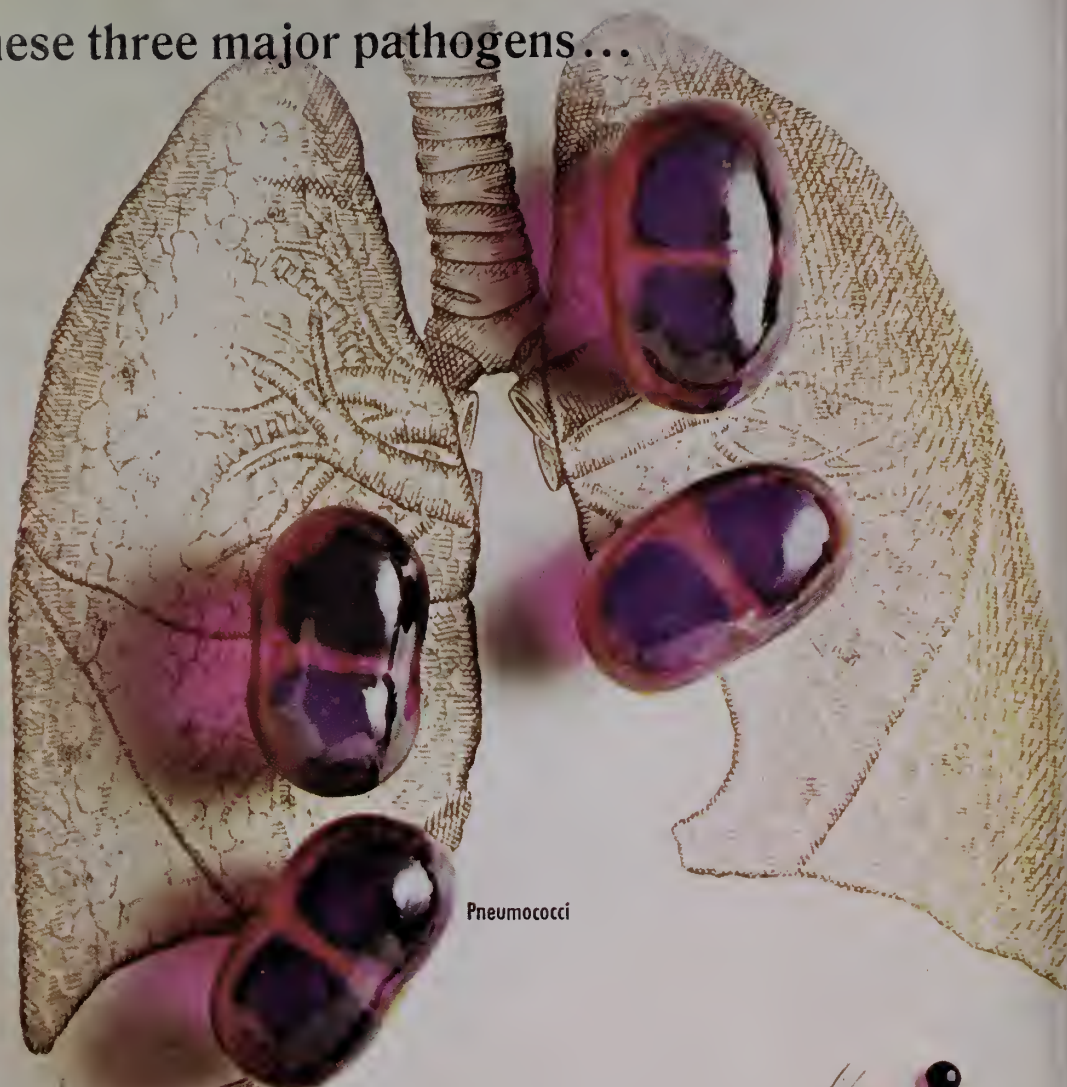
Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/Indications: Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

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Against these three major pathogens...



Pneumococci

Penicillin-Sensitive
Staphylococci



Beta-Hemolytic
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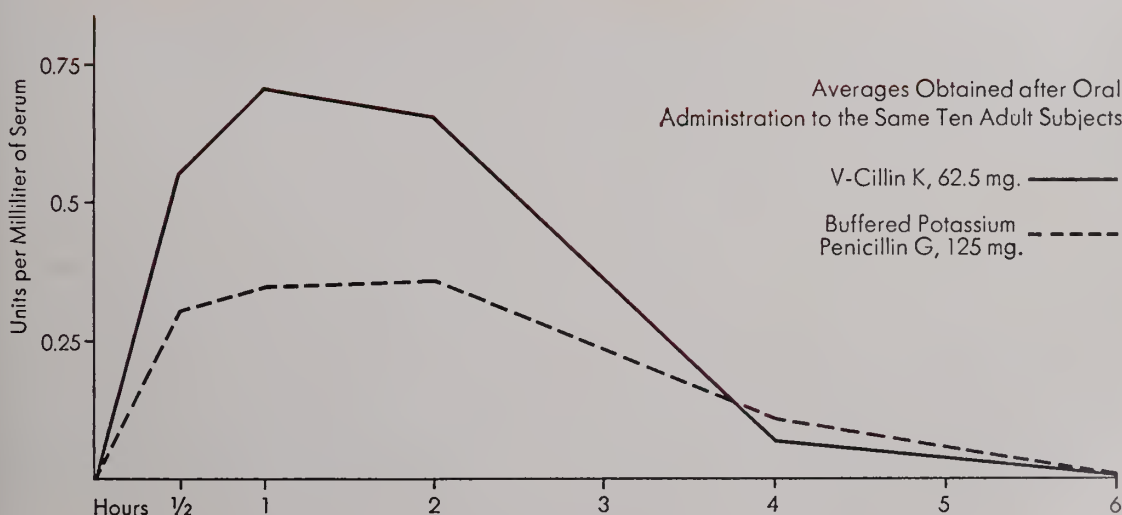
V-Cillin K[®] provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive)		Streptococcus, Group A		Diplococcus Pneumoniae	
	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range	Median MIC (mcg./ml.)	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269:1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K[®]  700636
Potassium Phenoxyethyl Penicillin

(See next page for prescribing information.)

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Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxy-methyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, its administration should be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a significant index of sensitization. The following hypersensitivity reactions associated with the use of penicillin have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; toxicaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated leukopenia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units once or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderately severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

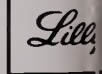
In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Refractory infections generally respond to a second treatment three to four days following completion of the first. Treatment of gonorrhea with severe complications should be individualized, with prolonged and intensive treatment. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) in bottles of 50 and 100; and 250 mg. (400,000 units) and 500 mg. (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) in 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.



THE WASHINGTON SCENE

(Concluded from Page 394)

ices coordinator to have primary responsibility for the program.

—Prepare a comprehensive plan for emergency services throughout the state.

—Establish training, licensing and related requirements for ambulance drivers, attendants, and dispatchers.

—Coordinate ambulance and other emergency medical care systems, including requiring ambulances to carry two-way radios hooked up with the police and hospitals.

—Provide first aid training and refresher courses for emergency service personnel and policemen and firemen, and encourage first aid instruction for the public.

Other draft regulations with medical aspects:

—Make physical and eyesight examinations for driver licensing.

—Do compulsory blood tests for alcohol on drivers in accidents.

* * *

Dr. John C. Nunemaker, chairman of the American Medical Association's Department of Graduate Medical Education, told a House Judiciary Subcommittee that the AMA's position continues to be that graduates of foreign medical schools who come

to the United States for training "should be encouraged in every possible way to return to their home countries where their skills are so badly needed."

Dr. Nunemaker suggested that the five-year length of stay provision for physicians on exchange programs be reconsidered. Every year beyond two or three years "intensifies the desire of the visitor to stay longer," he noted.

PROVIDENCE MEDICAL ASSN.

(Concluded from Page 391)

lopathy or Herpes Zoster, fungal causing cryptococcal meningitis or bacterial causing lysteria meningitis.

The practical significance of recognizing the association of malignancy with various central nervous disorders, neuropathies or myopathies is that an occult but still curable cancer may be discovered and extirpated.

Adjournment

The meeting was adjourned at 10:05 p.m.

Attendance 63

Collation was served

Respectfully submitted,

BERTRAM H. BUXTON, JR., M.D.

Secretary

DERMAQUIZ

CONDUCTED BY FRANCESCO RONCHESE, M.D.



Macular papular reddish pigmented spots mixed with whitish scary ones. Duration years. General physical health good. At right, a characteristic patient pose, while flipping specks of undetermined material on a black cloth in an effort to persuade the examining physician that the specks are living organisms collected on her skin.

For diagnosis turn to page 393

There are 9,550* undetected diabetics in Rhode Island

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

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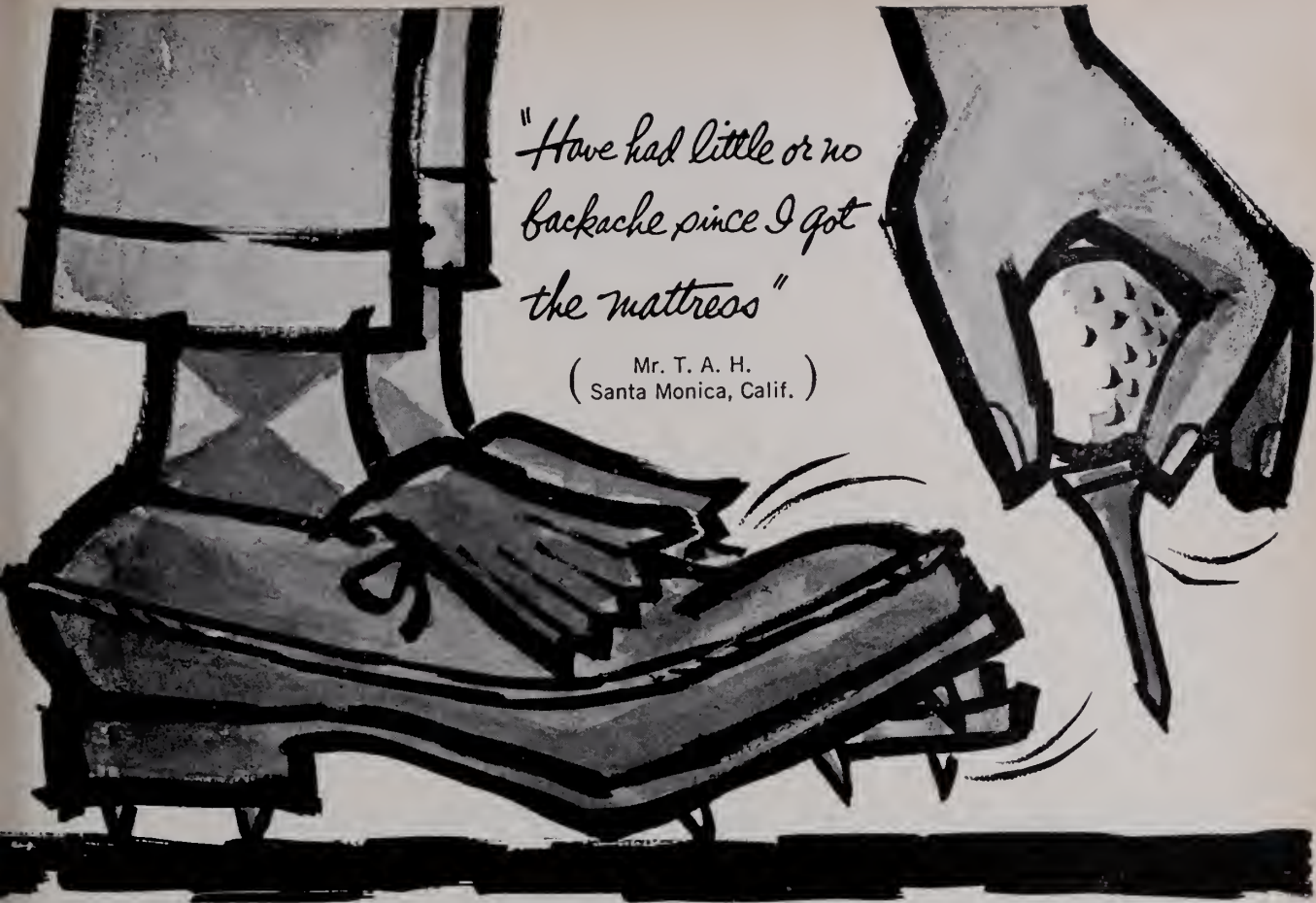
*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.



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BOOK REVIEWS

FERMENT IN MEDICINE by Richard M. Magraw, M.D. In collaboration with Daniel B. Magraw, M.B.A., W. B. Saunders Company, Philadelphia, 1966. \$6.50

"MEMIDS" and "MEDLARS," great words, aren't they? So easy to remember because they are so complex! No words, really, but part of this great new jargon in the new emerging automated, computerized world of medicine, people, and things. "Memids" stands for: Mechanical, Electronic, Mathematical techniques, Information and Decisions Systems, while "Medlars" stands for Medical Literature Analysis Retrieval System. Both terms are met with in the Chapter on Automation in Medicine, and this chapter is only one of the fascinating sections of the Magraw study of "the Essence of Medical Practice and of its new Dilemma." This book is unusual, comprehensive, and unsettling: unusual in its doctor to doctor admonitions, as well as its broad scope, encompassing every facet of medical practice and its interrelationship with paramedical fields, comprehensive in its meticulous analysis of the development of medical care in the American setting and unsettling in its rightful conclusions.

The authors set out a two-fold purpose: 1, "to analyze and define those elements in traditional forms of medical practice which are essential to optimal medical care and maintenance of health for all persons, 2. to describe and discuss some of the major forces now acting to modify existing concepts, practice and institutions in medicine." I believe they have accomplished their purpose. The how they did it, I leave to the interested readers. These readers could conceivably be many and from varied walks of life and professions; doctors, medical students, sociologists, medical writers in fact or in fiction, economists, psychologists, medical professors, hospital administrators, lawyers, historians, the various medical technologists, and even lastly the new breed of machine slave, the computer programmer.

The book is rather devastating to the medical ego, and in the face of present day developments is prophetic and dead right. However, in an epilogue, Richard Magraw becomes more encouraging. "If we are to attune ourselves to the times we live in, we must expect and anticipate change and conduct our daily work without becoming too deeply attached to or rooted in our particular way of doing things.

Social history contains many stories of 'debacles' resulting from blind or obstinate resistance to change, but it is also replete with examples of triumphant adaptation and mutation."

Truly this book should have been written at least ten years ago, perhaps beaten into our brains, at least five years ago, reviewed by me one year ago, and should be read by every doctor of medicine right now.

So on to the conquest of MEMIDS and MEDLARS.

JEANNETTE E. VIDAL, M.D.

SCANNING THE MEDICAL LITERATURE

HOW WE TREAT HEMANGIOMAS OF THE SKIN. Lawrence Norton, Francesco Ronchese, and Herbert Mescon. Postgraduate Med. 41:A-57, 1967

From the Department of Dermatology of Boston University Medical Center the authors discuss the types of hemangioma frequently encountered in dermatologic practice, viz. port wine stains, strawberry marks, and cavernous hemangiomas.

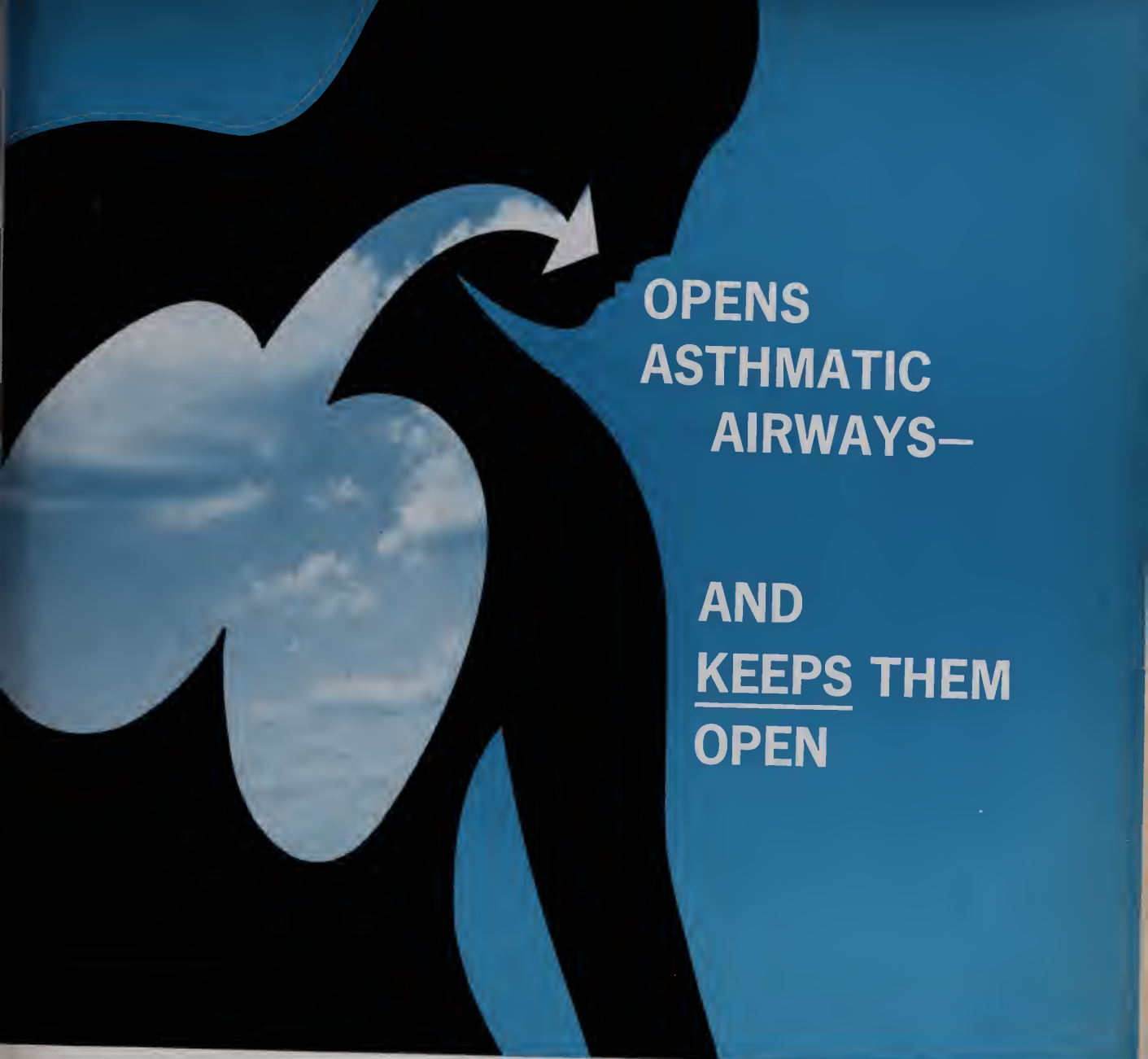
Seven types of therapy advocated are listed and discussed. Covering *cosmetics* is the only satisfactory remedy for port wine stains. *Tattoo* gives a partial result and is very expensive. *Electrocoagulation* and *electrolysis* are of help in some cases. *No therapy* (awaiting spontaneous involution) is the most successful, because most strawberry and cavernous hemangiomas involute spontaneously. *Radiation* is indicated in selected cases, contraindicated in others as, for example, vulvar hemangiomas. *Carbon dioxide snow* and *sclerosing injections* are often helpful. *Surgery* is indicated in selected cases, one of them a hemangioma which fails to involute spontaneously.

The selection of the proper method of therapy requires training and judgment.

DERMAQUIZ ANSWER

(See Page 395)

Diagnosis: Self inflicted dermatosis from picking, squeezing, extracting imaginary living organisms from the skin. Acarophobia—Delusion of parasitosis.



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700-607

SUPRAVALVULAR AORTIC STENOSIS

— A CASE REPORT —

Rare Lesion, Distinct From Valvular and Subvalvular Stenosis, Is Amenable to Surgical Correction

MARIO TAMI, M.D.

The Author: Mario Tami, M.D., of Providence, R.I., Member, Active Staff, Department of Cardiology, Roger Williams General Hospital, Providence, R.I.

CASE REPORT

A WELL DEVELOPED white female, with a history of a murmur detected at two months of age but no symptoms, was seen for the first time in 1961 at the age of 13. The only positive findings were confined to the chest. A thrill was noted at the second right interspace and at the suprasternal notch. The second heart sound was diminished in intensity at the second left and second right interspaces. A grade 4 stenotic type systolic murmur was heard in the second right interspace, radiating to the back and neck. A grade 2 mid-systolic rumble was heard at the apex. Peripheral pulses were normal.

Clinical diagnosis at that time was severe congenital aortic stenosis. Angiocardiography and cardiac catheterization studies were not performed. At thoracotomy, however, a severe type of supra-valvular stenosis was noted with an area of coarctation just a few centimeters above the insertion of the aortic leaflets. Markedly dilated coronary arteries were a prominent feature. At operation systolic pressure in the right ventricle measured 30 mm. of mercury, in the left ventricle 180, and in the aorta 100. The constricted area was opened longitudinally and a Teflon® prosthesis was inserted.

The patient was seen again in 1966 at the age of 18, at which time she was completely asymptomatic with no limitation of physical activity. Examination of the heart disclosed a grade 3 systolic murmur over the whole precordium, radiating from the apex to the left axilla and from the base to the subclavicular area and the neck. Chest x-ray examination was normal, and electrocardiogram disclosed sinus rhythm, normal conduction times, and axis of plus 70° with small diphasic T waves in leads II, III, aVF, and V6.

REVIEW OF LITERATURE

Archer in 1871 first reported a case of obstruction to the outflow of blood from the left ventricle

not due to an aortic valvular lesion. The cause was a congenital band stretching across the origin of the aorta. The first case of true supra-valvular aortic stenosis is credited to Mencarelli in 1930, who also coined the term.¹ Up to 1958 only four cases had been reported. Morrow et al.² of the National Heart Institute added three cases in 1959. Two died, one following an unsuccessful attempt at surgical correction. Wooley et al.³ in 1961 described four patients and collected eighteen cases from the literature.

Of the 104 cases of aortic stenosis of all types studied at the University of Minnesota Hospitals between 1958 and 1962,⁴ only six were found to have supra-valvular aortic stenosis. A review of the literature by Peterson et al.⁴ in 1965 revealed sixty-eight cases of supra-valvular aortic stenosis. There was involvement of the aortic valve in 15.

Four cases of supra valvular aortic stenosis in mentally retarded patients with unusual facial features were reported by Williams et al.⁵ in 1961, a syndrome not previously described. In addition to other common features, all four patients presented blue irises and retinal vessels of unusual tortuosity resembling those found in coarctation of the aortic isthmus. In Peterson's series of 68 cases, 23 showed mental retardation.

Chromosomal abnormalities and a familial occurrence, first reported by Sissman in 1959, have been confirmed by other authors. A dominant Mendelian inheritance with incomplete penetrance has been suggested.

A relationship between excess intake of Vitamin D in pregnancy and the pediatric syndrome of supra-valvular aortic stenosis, mental retardation, and elfin facies has been suspected only recently. A striking similarity between the facies of patients with supra-valvular aortic stenosis and children suffering from severe idiopathic hypercalcemia in infancy was recognized in 1963. Autopsy studies of infants who had died of severe idiopathic hypercalcemia disclosed a variety of cardiovascular defects, including renal artery stenosis, coarctation of

(Continued on next page)

the aorta, abnormality of the aortic valve, and peripheral pulmonary stenosis. It was noted in England in the early 1950's that an epidemic of hypercalcemia with coincident cardiovascular defects coincided with the heavy use of vitamin D as a dietary supplement. With the reduction in the vitamin D content of milk, the outbreak of severe idiopathic hypercalcemia came to an abrupt end.⁷

Actually the key factor is not the dosage intake of vitamin D per se, but the greater rise and more prolonged maintenance of a high vitamin D level in some children. In Peterson's series of 68 cases,⁴ 16 had associated hypercalcemia.

ANATOMY

Anatomically the anomaly can be classified in three groups:⁸ Group I, in which there is a fibrous band with free edges extending across the aortic lumen at the level of the attachment of the aortic valve commissures to the aorta; Group II, characterized by an obstructing membrane inserting into the aortic wall at the level of the commissures; and Group III, in which an externally apparent concentric narrowing of coarctation just above the level of the coronary ostia is the dominant feature. Hypoplasia of the entire ascending aorta has also been reported.

Status of the Coronary Arteries. The status of the coronary arteries was not always noted. Variations from dilatation to partial obstruction of the ostium were reported, or origin in pouches formed by fusion of the free margin of the left aortic cusp with the aortic wall. Peterson reported abnormalities in 20 of the 23 cases in which the status of the coronary artery was mentioned.

The most commonly reported coronary anomaly was that of increased external diameter and tortuosity of the vessels, with a thick medial layer causing both increase in external diameter and encroachment on the lumen of the vessel. Intimal fibrous thickening or in some cases atherosclerosis occurred. In a few cases, fusion of the free edge of the aortic cusp to the side of the supravalvular stenosis occluded one of the coronary arteries, the second coronary maintaining the circulation.

Supravalvular aortic stenosis with hypoplasia of the ascending aorta was reported by Neufeld,⁹ in 1962. The status of the coronary arteries, which showed striking thickening of the media associated with deposition of elastic fibres in the media, was stressed. These changes were considered to be a reaction to the systolic hypertension in these vessels.

Coexistent Aortic Insufficiency. Coexistent bicuspid aortic valve is mentioned by Dotter et al.¹⁰ as a cause of aortic insufficiency in supravalvular aortic stenosis. Other causes may be atrophy of an aortic cusp, fusion of an aortic cusp to an intra-

luminal membrane, or adherence of an aortic valve leaflet to the aortic wall.

DIAGNOSIS

Absence of aortic dilatation in this condition is stressed in all the reports, but post-stenotic dilatation was found in a few cases. Poststenotic dilatation with signs of aortic stenosis renders a diagnosis of supravalvular stenosis less likely. However, absence of dilatation may be found also in cases of sub-valvular stenosis. It is recommended that all patients suspected of having an obstruction of the left ventricular outflow tract be subjected to angiocardiographic studies.

Starr et al.⁸ perform left heart angiograms routinely prior to aortic valve surgery, with injection of contrast medium into the left ventricle and ascending aorta through a catheter inserted in retrograde fashion through the femoral or brachial artery. The presence of associated insufficiency is easily demonstrable by supravalvular injection. Right sided angiocardiography is also useful to rule out a coexistent peripheral pulmonary artery stenosis, noted to be present in 13 of 19 cases in Peterson's series in which the status of the pulmonary artery was mentioned.

Manometry at the supraventricular level is not likely to be complicated by the multiple ectopic beats so often associated with readings in valvular or subvalvular disease.

Denie et al.¹¹ presented a case of supravalvular aortic stenosis in a patient 25 years of age with Marfan habitus. Aortography was not done, but the diagnosis was suspected from the pressure curve obtained at retrograde catheterization of the left ventricle. At operation a circular narrowing of the aorta 2 cm. above the valvular ring was seen. Catheterization studies, however, are not as a rule as helpful as contrast x-ray studies.

Characteristic electrocardiographic findings are those of left ventricular hypertrophy and strain. Right ventricular hypertrophy in infancy has been reported.

Marked pulsation of the right carotid artery and inequality of the pulses in the arm have been noted in several cases. These have been attributed to: 1) coarctation of the aorta between the origins of the innominate and left carotid arteries, 2) abnormality of the origin of the main vessels from the aortic arch and a "jet," directed by the left ventricular outflow towards the innominate artery, thus producing abnormal right brachial and carotid pulses.

The characteristic mid-systolic murmur and thrill appear to be situated at a higher site than in aortic valvular stenosis, in some cases in the first right intercostal space and suprasternal notch, radiating into both carotids, especially the right. Although a

diastolic murmur is usually absent, it has been reported to be present in some cases. Its presence does not preclude a diagnosis of supravulvular stenosis. A significant degree of aortic incompetence, unusual in congenital aortic stenosis and uncommon in subaortic stenosis, is actually a useful clue. Cyanosis for several weeks after birth is seen in some patients, attributable to delay in closure of the ductus secondary to altered mechanism of the closure of the ductus, due to the hemodynamic effect of the aortic obstruction. According to Dotter,¹⁰ angina has been noted in some cases of supravulvular stenosis, but syncope has not been reported.

SURGICAL CORRECTION

The first unsuccessful attempt to dilate a supravulvular aortic stenosis was reported by Kreal in 1958. In 1961 McGoon et al.¹² reported the successful surgical correction of this lesion in 3 cases, the first in 1956. In this case the diagnosis was established at surgical exploration; their first correct preoperative diagnosis was accomplished in 1959. De Bakey¹² reported a successful case in 1963, the eighth reported in the literature up to that time.

Procedures to relieve the obstruction vary. Longitudinal aortotomy followed by introduction of a patch to widen the lumen is a favored procedure. However, this type of correction is not always possible, due to close proximity of the area of narrowing to the attachment of the aortic commissures.

Circumferential excision of the area of stenosis with end to end anastomosis has been reported. However, in the majority of instances the close proximity to the aortic valve precludes this technique. If the aortic valve is unaffected, no additional procedures are needed. Otherwise consideration must be given to valve replacement.

Certain forms of the defect may not be amenable to complete surgical correction. Simple widening of the stenotic area may leave deformed aortic cusps, obstructed coronary arteries, or marked aortic regurgitation. A hypoplastic aortic arch presents an extremely difficult technical problem. No report of satisfactory graft replacement of the ascending aorta was found in the literature. This malformation, however, is compatible with a long life, as evidenced by a case reported by Sissman et al. of a seventy year old man in whom the diagnosis was made at necropsy.

The problem of mortality in surgically versus non-surgically treated patients is discussed by Peterson. In his series of 68 cases collected from the literature, 27 had died at the time of review. Death in 15 cases occurred postoperatively. Of the 12 non-surgical deaths, 6 occurred suddenly, 4 others from congestive heart failure, and 1 of bacterial infection at the stenotic site.

SUMMARY

A case of supravulvular aortic stenosis in a 13-year-old girl, successfully treated by surgery, is reported. The literature is reviewed, and the diagnosis and surgical management are discussed.

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THE OFFICE MANAGEMENT OF BLEEDING DUODENAL ULCER

Bleeding From Massive Duodenal Ulcer Controlled Without Hospitalization

NATHAN SONKIN, M.D.

The Author, *Nathan Sonkin, M.D., of Providence, R.I. Physician, Veterans Administration Hospital, Outpatient Clinic, Providence; Senior Physician, Memorial Hospital, Pawtucket; Associate Physician, Miriam Hospital, Providence.*

THE TREATMENT of bleeding duodenal ulcer is always fraught with anxiety. In our community it is considered proper and necessary for the management of bleeding duodenal ulcer to be under the aegis of both the general practitioner or internists, and the general surgeon. This partnership in management is in the general hospital where whole blood is available and the operating room can be alerted for emergency surgery when necessary. Under these ideal conditions the first seventy-two hours is usually an anxious period for the attending physician. The patient is usually heavily sedated and on strict medical ulcer regimen. In addition, he frequently receives several units of whole blood.

The present case is being reported for several reasons. First, it shows one instance in which an actively bleeding duodenal ulcer was managed safely on an ambulatory basis. Second, it demonstrates that iron therapy for the anemia of bleeding can be just as effective in the long run in restoring hemoglobin and red cells to within normal levels as blood transfusions without any of the calculated risks in the administration of blood. Third, it documents ulcer healing by radiologic means under unusual circumstances. Fourth, the modified restriction of physical activities without the enforcement of strict bed rest was without adverse effects in this patient. Fifth, the untoward effect of acetylsalicylic acid was inadvertently demonstrated. All the above statements must be qualified relative to the unique features of this case which will be presented subsequently.

There were several ethical, moral, and philosophical aspects to consider before treatment was undertaken. One immediately wonders why any modern physician would take the considerable risk of treating a bleeding duodenal ulcer outside the relatively safe confines of a hospital in today's medical world. The answer is simple although the underlying reasons are complex and will be elucidated. The patient absolutely refused hospitalization despite all the arguments the author could muster. Rather than abandon this sick patient, it was decided to take

the calculated risk of treatment with the proviso that if the hemoglobin dropped below 9.5 grams, or the hematocrit dropped below 25 per cent, he would enter the hospital. Despite this compromise, the first week of therapy was filled with apprehension. The patient was cautioned to call at any time if he should change his mind about hospital admission.

It was felt that it was morally wrong to abandon this patient despite his refusal to follow advice. He was adamant against securing the services of another physician when given the choice. An obligation to treat this patient to the best of the doctor's ability was present despite the handicap imposed by his obstinate refusal to enter the hospital.

A review of the world literature of the past ten years failed to reveal any reports on the ambulatory treatment of duodenal ulcer in the stage of active bleeding. There is no doubt that other physicians have probably treated bleeding duodenal ulcers outside of the hospital. It is also reasonable to assume that on rare occasions bleeding ulcers may stop spontaneously without medical intervention. However, no documentation is available to substantiate the above assumptions.

CASE REPORT

A fifty-two-year-old, white, married male presented himself at the office with complaints of fatigue, heartburn, headache, dizziness, midepigastic pains occurring after meals, nocturnal pain, and black stools of one day's duration. A significant point in his past history was a bout of acute ulcer pain six years previously which had been confirmed radiologically as a duodenal ulcer.

Physical examination revealed an extremely pale individual. Skin was clammy to touch. His pulse rate was 138 per minute but of poor quality. Blood pressure was 98/60. The abdomen was tender in the midepigastic region. Digital rectal examination revealed a black, tarry stool.

A diagnosis of bleeding duodenal ulcer was made, and this was confirmed on the same day by a gastrointestinal x-ray series.

Treatment was initiated with the intake of eight ounces of ice water every two hours along with milk and cream feedings. Drug treatment consisted of sedatives, antacids, and anticholinergics. Iron therapy was started on the seventh day after the bleeding had lessened.

TABLE I — LABORATORY DATA

Days of Treatment	GI Series	Hb in Grams	Hb Per Cent	Hct Per Cent	Stool for Occult Blood	RBC in Millions	WBC	Differential in Per Cent
1	Active duodenal ulcer							
2		10.6	73	30	++	3.6 M	8700	N66, L28, Mon 4, E2
4		10.0	69	28	+++	3.1 M		
5		10.0	69	29	—			
7		10.0	69	30	—	3.5 M		
8		10.0	69	31	—			
10		9.6	67	29	—			
12		10.3	71	31	—			
14		10.6	73	31	+			
15		10.3	71	32	—			
17		11.0	76	34	—			
19		11.4	78	34	—			
21		12.4	86	37	—			
25		12.7	89	39	—			
26		12.4	86	44	—	4.7 M	6650	N64, L34, Mon 4, E2
36	Healed duodenal ulcer	14.3	99	44	—	4.8 M	8200	N72, L21, Mon 4, E3

On the fourth day of treatment the patient experienced a severe headache for which he took aspirin on his own. This increased his bleeding and caused severe abdominal pains. He was cautioned to avoid aspirin and all aspirin containing compounds thereafter for an indefinite period.

The laboratory data in the course of treatment of this patient is presented in Table 1.

SUMMARY

A case is presented of the obligatory treatment of a patient with an active bleeding ulcer which was managed medically on an ambulatory basis. This is documented because of the unusual features rather than to prove the foolhardiness of the author.

Legend for abbreviations:

GI — gastrointestinal
Hb — hemoglobin
Hct — hematocrit
RBC — red blood cell
WBC — blood cell
M — million
N — polymorphonuclear neutrophile
Mon — monocyte
E — eosinophile
L — lymphocyte

REFERENCE

¹Sonkin, N: Ice Water in the Ambulatory Treatment of Duodenal Ulcer. Rhode Island M. J. 47:19, 1965.

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MASTERS IN MEDICINE . . .
**BERNHARD ZONDEK, M.D., 1891-1966: PIONEER IN
ENDOCRINOLOGY***
***Through His Researches He Guided Female Endocrinology to
Its Present High State***
MICHAEL FINKELSTEIN, Ph.D.

The Author, Michael Finkelstein, Ph.D., Associate Professor of Endocrinology; Head, Hormone Research Laboratory, The Hebrew University-Hadassah Medical School, Jerusalem, Israel.

"Be fruitful and multiply" was the injunction given to Man when he was created.

"Male and female He created them." But not all were to be blessed with fertility, although from time immemorial man tried to restore this natural right to those to whom it had been denied for no obvious reason. In various ways man tried to regain this missing power. Thus women used mandrakes which were believed to have the property of stimulating sexual desire or inducing pregnancy, and men would eat the reproductive organs of a powerful warrior who had fallen in the field of battle. Man deeply believed that there were in the plant kingdom and in the sexual organs miraculous substances that could restore fruitfulness to the unfortunate ones who had been blessed in vain.

Thousands of years passed by, and gradually man's self-knowledge and understanding of his environment was enriched. In the year 1889 a famed French physiologist named Brown-Séquard used the testes of bulls to prepare water extracts, which he then injected into himself. He reported that these extracts had a rejuvenating effect, thus supporting some of the beliefs of primitive man. But Brown-Séquard's observations were as fanciful as the superstitions of primitive man who used to eat the testes of his enemies.

It was remarkable that these extracts, which must have been devoid of any male hormone activity, were thought effective by Brown-Séquard and others. These apparent successes led pharmaceutical companies some years later to prepare water extracts of testes and subsequently of ovaries. The ovarian extracts were recommended for correction of menstrual disturbances and to aid conception. Practically all reputable physicians prescribed these extracts without hesitation for patients

undergoing treatment of sterility. The preparations which were marketed in various forms and under a variety of names were reported to produce beneficial results.

However, not all physicians believed in these wonder preparations, for there were some skeptics in the profession. In the early 1920's a young doctor had just graduated in medicine from the University of Berlin, specializing in gynecology. Approaching his professor to discuss the value of the extracts, he observed: "I don't think these extract preparations have any value whatsoever, and I don't think they can affect the function of the sexual organs." The professor replied: "Look around at all the renowned professors throughout Europe who recommend these extracts and give favorable reports of them. Who are you to challenge them." The young doctor, not discouraged, asked permission to experiment with the extracts on animals in order to find out whether the illustrious professors were also dependable physicians. This approach apparently appealed to the professor, since he laughed and conceded: "I can't prevent you from trying to establish a test of that kind." The professor was Karl Franz, and the young doctor was Bernhard Zondek. The extracts were found to be completely devoid of activity.

Zondek asked himself why in fact the extracts were so lacking in activity. After all, the ovaries secrete active material which stimulates cyclic changes in women as well as in animals. He wondered: Could it be that there are only certain regions of the ovary which are rich in active material? Zondek again went to Professor Franz with the following suggestion: "I will take small pieces from the ovaries, implant them in experimental castrate rats, and observe by the Allen-Doisy method which regions of the ovary are rich in substances which can produce estrus."

Franz hesitated to consent to Zondek's proposal, since Zondek had almost failed his final examinations in gynecology a few years earlier. Franz replied: "You should understand that the tissue which you are going to implant will not be retained, but will be destroyed. You will not achieve any result." "That is exactly what I am aiming for," said Zondek. "I wish the tissue to solvolyze, and then I will obtain an extract of the tissue in the body of the

*This essay, which appeared in somewhat different form in HADASSAH Magazine, publication of the Women's Zionist Organization of America, New York, N.Y., is published here with the permission of HADASSAH Magazine and the Author.

experimental animal. Should the tissue contain active material I should be able to observe the result in the animal."

Franz accepted this reasoning. Zondek thereupon demonstrated that the greatest concentration of active material was in the growing ovarian follicle and particularly in the follicular fluid. Administration of the active ovarian material to immature mice affected the growth of the uterus and the lining of the vagina, while the ovaries themselves remained infantile. This result puzzled Zondek. If the material secreted by the ovary inhibited the growth of the ovary, then there should be another material activating and producing cyclic changes in the ovary. Such a material had recently been described by Allen.

To find this hypothetical substance Zondek implanted sections of various organs of the body. He observed that portions of the anterior lobe of the hypophysis (pituitary) produced changes in the immature mice as if their sexual development had been speeded up amazingly.

This observation was a landmark in the development of modern endocrinology. Zondek realized, with his unusual insight, that the anterior lobe of the hypophysis secreted a hormone, the main action of which was to stimulate the ovary to secrete its own specific hormone. Thus Zondek introduced a new concept to endocrinology, namely the existence of trophic hormones. Zondek postulated that the anterior lobe of the pituitary acted as the driving motor of the sexual activities and that the motor was regulated by the products of the stimulated gland. This meant that small quantities of the ovarian hormone activated the pituitary to increase its secretion of gonadotrophin which in turn stimulated the secretion of estrogenic hormone from the ovary. If the latter reached a certain level it inhibited secretion of gonadotrophin by the pituitary. This explanation of the feedback mechanism affecting interdependent endocrine glands was not only a turning point in the understanding of endocrine systems, but also a new approach to the treatment of endocrine disorders. Thus the use of corticosteroids to suppress the secretion of adrenocorticotrophic hormone (ACTH) is a direct outcome of the discoveries of Zondek of 35 years ago.

Of all the organs other than the hypophysis examined by Zondek for gonadotrophic activity, only the placenta exhibited activity. In addition to its gonadotrophic activity, the placenta contained an estrogenic substance. Zondek succeeded in separating the two: the gonadotrophin could be extracted with water and the estrogen with organic solvents.

Bernhard Zondek ate many apples from the Tree of Knowledge, and his scientific curiosity and wis-

dom were unlimited. He deduced that, if the placenta contained large amounts of these hormones, they would be found in high concentration in the blood and urine of pregnant women. He soon confirmed this experimentally. Following this finding, urine became a biological fluid of great importance in the study of hormones because of its ready availability. He found that the urine of pregnant mares contained 10-20 times the amount of estrogenic hormone as that of pregnant women. This led to a "gold rush" in the pharmaceutical industry. The belief spread that estrogenic hormone could be useful in the treatment of female sterility and that a preparation of high activity would be desirable. The demand for the urine of pregnant mares increased steadily, and its price equalled that of milk. Strangely the concentration of the hormone in the urine thereafter steadily decreased. The peasant suppliers began to dilute the pregnant mare urine with human pregnancy urine and even non-pregnancy urine. Faced by this situation, Kober developed a quick chemical method to estimate estrogen. Shortly thereafter free estrogenic hormones were isolated from the urine of pregnant women, extracted by methods based on Zondek's work.

During the same period Marrian, while searching for estrogens, isolated pregnanediol. These early discoveries were followed by the isolation of a

(Continued on next page)



BERNHARD ZONDEK, M.D.

series of steroids, some of which were active hormones and others inactive metabolites. The isolation and estimation of these materials opened the way to the study of the metabolism of steroid hormones in health and in endocrine disease in man. Many diagnostic tests have been developed using steroid assays. These developments have grown from Zondek's discovery that the steroids, excreted in urine in a conjugated form, could be isolated by splitting the conjugates.

What about the gonadotrophic hormone? Zondek had not forgotten it. In collaboration with Ascheim he undertook detailed research concerning its excretion in man and in several animals. He found that it was excreted only by women and by other female primates in pregnancy. His early experiments became the basis for a test for the diagnosis of pregnancy, a test of amazing accuracy and one which brought universal fame to him. However, Zondek did not rest on his laurels. Continuing his investigations he found that the urine of women past the menopause contained a hormone which was similar to the gonadotrophin of pregnancy. Its action, however, was incomplete, in that it did not induce the formation of corpora lutea in immature mice. From this Zondek concluded that there were two gonadotrophins, one a follicle stimulating hormone and the other a luteinizing hormone. Although later research has shown that these conclusions were not quite precise, since there is a pituitary luteinizing hormone differing from the gonadotrophin of pregnancy, his work was substantially correct in basic principles.

Zondek's discoveries contributed significantly to diagnostic procedures for the differentiation of various types of amenorrhea, for the identification of a disturbed pregnancy, and for distinguishing benign from malignant trophoblastic tumors. In malignant trophoblastic tumors, Zondek's test is of primary importance because it gives the correct diagnosis even where surgical exploration fails to detect the tumor. Recently, with the introduction of chemotherapy for the treatment of such tumors, the test is useful as a guide to the effectiveness of the therapy.

One of Zondek's main hopes was that treatment of sterile women with gonadotrophins would induce ovulation and thus lead to pregnancy. His preparations, due to a number of factors, did not have the necessary activity, but his concept was correct. About 25 years after Zondek's original experiments, Gemzell demonstrated that treatment with gonadotrophins of human origin could result in ovulation in women previously anovulatory.

Zondek tried to attack the problems of sterility by other means. Having observed that small quantities of estrogen activated the secretion of gonadotrophin, he deduced that the continuous administration of small amounts of estrogen would activate the pituitary and thus produce ovulation. This treatment appeared to be effective in some cases, but in others, clinically identical, it was totally ineffective. Displaying his customary sarcastic humor, Zondek would ask: "Why did those who respond respond!"

Zondek had a flair for relating clinical observations to laboratory findings. He enjoyed meeting challenges; he delighted in solving problems and moving on to new ones. In the limited space of a few paragraphs one can touch upon only a few of his endeavors. He had many successes, but he also had disappointments. He never feared failure; he would say, "The main thing should be to make the research interesting." Indeed his life was full of challenge, and he generated a host of ideas among his co-workers and in those who read of his work. Zondek was a pioneer in the field of female endocrinology. He delved deeply into the subject and guided it during its development and its emergence to its present high state.

During an interview which I had with him but a few months ago on the occasion of his 75th birthday he said: "My generation discovered the hormones and used them with varying degrees of success in the treatment of endocrine disorders. But the mode of action of hormones is still a mystery to us. This mystery I hope will be penetrated by your generation." If this hope is fulfilled, and I am convinced that it will be, it will be attributable to the pioneer work of Professor Bernhard Zondek. His name will be inscribed for ages in the history of medicine and of endocrinology. We, his pupils, will remember him with regard and admiration.

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Presidential Address —

THE DOCTORS' IMAGE — BLUE SHIELD — COMMUNITY ACTION****Retiring President Reviews Areas of Concern Recurring During Recent Months***

HARRY E. DARRAH, M.D.

The Author. Harry E. Darrah, M.D., President of the Rhode Island Medical Society, 1966-67; Director of Medical Education at Roger Williams General Hospital.

For over 150 years it has been the privilege of the President of the Rhode Island Medical Society to address the membership upon completion of his term of office. The content and tone of this valedictory will certainly be different than any given in the past.

For this has been the year of change. The past 12 months have seen profound socio-economic changes that deeply affect the lives of all citizens. Not the least of these has been an avalanche of health legislation unparalleled in American history.

Almost immediately, as the year began, your officers and committees found themselves operating in new and in some instances unfamiliar areas under the most extreme pressures. We were without guidelines and had no precedents to follow. Crisis followed crisis in a seemingly endless succession as we were forced to arrive at major decisions that could have enormous impact on our profession for years to come. We attempted to inform ourselves as fully as possible on the regulations and intent of these laws, meet with those responsible for implementation, wherever and whenever possible, and to enter into all discussions and negotiations in a forthright and statesmanlike manner.

The difficulties that ensued almost defy description. Our resourcefulness and patience were taxed to the utmost. But we struggled on, in an atmosphere of constant frustration and bitter disappointment, to the end that we would fully discharge our responsibilities to our patients and our Profession.

The degree to which we have been successful is directly attributable to the invaluable counsel and support I received from your officers, members of the Council and House of Delegates, Committee chairmen and our Executive Secretary. To each of them my thanks as well as to the many other members of the Society who gave so generously of their time and effort during the past year.

Certain recurrent areas of concern seemed to be brought more sharply into focus during these hectic months. I would like to comment briefly on three of these, not necessarily in the order of their importance.

First, in my view, one of the most tragic facts of our professional life today is the shocking erosion of our public image. This must be corrected, at whatever the cost. In most instances the severe criticisms of our operations and practices and the almost continual harassment to which we have been subject have not been justified. Certainly, direct or indirect statements, from any quarter, that impugn the integrity of the entire medical profession, I regard as reprehensible in the extreme and unworthy of the source from which they come. However, it is my considered judgment that lay opinion, no matter how critical, should be given full consideration, now and in the future. Such opinion, in many instances, is offered by individuals and organizations who may be just as sincerely motivated and concerned with the delivery of health services as we. To ignore such opinion and continue strictly defensive arguments aimed at maintaining the status quo will no longer suffice, and must be abandoned.

I urge, then, that we discard old taboos, break down traditional barriers and embark at once on a broad program of improved public relations with the employment of expert professional help. We have a good story to tell. Let us tell it well.

Secondly, our experience of recent months strongly indicates that the posture of the Rhode Island Medical Society in the operations of our Physicians Service Plan should be carefully re-examined. It has been all but forgotten that this plan was initiated 17 years ago, solely by the Rhode Island Medical Society, in a sincere effort to provide fully paid surgical benefits to low income patients. From this simple and very admirable beginning we find our selves backed into an extremely complicated position that many regard as untenable.

Critical, objective analysis of our situation might well point out the desirability of basic changes in this operation in the light of our participation in current Federal programs. At the very least, such a review might be the beginning of an appreciation,

(Continued on next page)

*Presidential Address delivered at the 156th Annual Scientific Assembly of the Rhode Island Medical Society, at the Sheraton Biltmore Hotel, Providence, R.I., May 9, 1967.

on the part of all concerned, of the necessity of basing physician reimbursement on one single structure — that of the usual and customary fees, and bring about concerted effort to that end.

I would hope that such a study might be made an early order of business in coming months.

Thirdly, there seemed to be general agreement early in our experience that the best interests of our patients and ourselves would be served by full, early participation in the planning and development of federal programs in so far as we were able to do so. It is obvious that working with governmental agencies in matters such as these is fraught with great danger. To some there is danger of identifying our organization as a supporter of socialized medicine, and to others the danger of being used as a scapegoat for the inevitable problems and dissatisfactions that seem bound to arise. But these are risks I feel we must take if we are to mitigate some of the more unfavorable aspects of these programs and, hopefully, insure the delivery of improved health services to a wider segment of our population.

The very satisfactory implementations of Titles 18B and 19 of the Medicare amendments to the Social Security law in our state are excellent examples of what can be accomplished in this regard. Likewise, the early planning for public law 89-239, the heart, cancer, and stroke legislation, which has resulted in adequate representation for our society at both the tri-state and local level, seems to be most acceptable.

I recommend in the strongest possible terms that it be our stated policy to enter fully into all health care programs and projects at the earliest possible moment. Should we not do so, I fear that we will destroy any possibility of useful discussion with third parties, who will then take full control. The inevitable result will be to compound our difficulties and bring about regulations of the most severe and destructive type.

Finally, I make a plea for unity throughout our profession. No longer can we afford the luxuries of petty jealousies and interprofessional bickering and quarrelling over matters of little or no importance. Coming events will continue to tax our strength and morale to the utmost. Unless we rededicate ourselves to our wonderful Profession, and unite as never before, I fear that the ever larger waves of change to come will wash us away completely, leaving only memories of the greatness that once was ours.

The often used quotation from Dr. Reinhold Niebhuur seems to sum up my thoughts, at this moment —

"give us serenity to accept what cannot be changed, courage to change what should be changed, and wisdom to distinguish the one from the other."

I am proud to be a physician, and it is with great pride that I have served you this past year to the very best of my ability.

AN AID FOR DIABETES SCREENING

The Committee on Diabetes of the Society engages in a year round program which is climaxed with the annual detection week in the Fall, and the Diabetes Fairs. In the past year over 5,000 persons were screened and 119 new cases of unsuspected diabetes were discovered.

In a separate trial study the members of the committee have screened almost 600 persons in their private offices and this check has produced a yield of 22 new cases. In this special test the members used an automated, quantitative, micro-screening technique which employs capillary blood specimens and utilizes the Unopette-Auto-Analyzer method. The Unopette, consisting of a disposable, self-filling capillary pipette and reservoir, greatly reduces the amount of time and skill required to obtain a blood sample.

The Rhode Island Department of Health demonstrated this technique in an exhibit at the annual meeting of the Society in May, and the Department is prepared to provide the materials and supplies for any physician interested in making the tests in his private office.

The committee calls to the attention of the members of the Society that while the urine glucose tests and the fasting blood sugar are valuable in the follow-up of a known diabetic, they are not reliable criteria in diabetes *detection*. A two hour post-prandial blood sugar determination, or better still, a glucose tolerance test, are preferable in helping diagnose unknown diabetics, particularly if they are obese, over 40 years of age, or have a family history of diabetes.

ONE SENTENCE ESSAY

To avoid danger of suffocation, keep away from children.

... Warning on plastic garment bags, noted by Alexander Gode, Ph.D., in "Just Words," JAMA, Jan. 2, 1967

THE TWENTIETH YEAR OF THE WOMAN'S AUXILIARY*

Community Action By Society's Auxiliary Demonstrates Its Great Contributions in Health Programs

MRS. JOHN T. BARRETT

The Author, Mrs. John T. Barrett, of Providence, R.I. President, 1966-67, The Woman's Auxiliary of the Rhode Island Medical Society.

Twenty years ago, in February, 1947, Dr. Herman C. Pitts, President of the Rhode Island Medical Society, called a meeting of doctors' wives to discuss the matter of forming a Woman's Auxiliary. Today we look back in gratitude for the vision of those responsible for forming our present Auxiliary. During these twenty years the Auxiliary has grown in many ways. It has successfully passed through its childhood and adolescent years and tomorrow will become "of age." Those who assisted at its birth and nurtured it through these important years have faithfully abided by its original purpose, to assist and support the Medical Society and provide service in medical work. In most major projects of the Medical Society, "End Measles," "End Polio," the Health Fair, the annual Diabetes Fair, to mention a few, Auxiliary members have participated and been honored to do so. The success of most Auxiliary undertakings is largely determined by the support of the Medical Society.

Last Fall, wearing sport clothes and kerchiefs from the colorful "Kerchief Tree," you helped the Auxiliary make "Fall Fling" the most profitable of our fund-raising ventures to date. As a result, the Scholarship Fund was raised to the new height of over \$1,700, and will assist deserving students in nursing and health careers.

You cleared your shelves of sample drugs, medical journals and instruments and gave to our International Health Committee 7,600 pounds of drugs and 1,000 journals. These have been sent to Indonesia, East Pakistan, the Philippines, Korea, Africa, Japan and Brazil to the jungles of the Amazon.

You co-sponsored with the Auxiliary, the State Department of Health, the State PTA, and the Rhode Island Council of Community Services, the successful symposium on Teen-Age Venereal Disease which was called to inform community leaders from all over the state of the seriousness of this problem.

You have given your blessing to our other projects:

The teaching of foreign house officers in the Spoken English course which was continued this year.

The call of the Mental Health Committee for volunteers when the employees of the State Hospital threatened to strike last Fall. Auxiliary members were alerted and stood ready to help out if need arose.

The distribution by the Health Careers Committee of the attractive and readable new AMA paperback book, "Horizons Unlimited" to junior and senior high schools in all parts of the state.

Committee chairmen have attended meetings of the Joint Legislative Council, the Rhode Island Council of Community Services, the Rhode Island Society for the Prevention of Blindness and the Conference on Civil Defense.

Four committee chairmen and the president attended the AMA-ERF Regional Workshop held in New York by the Woman's Auxiliary to the American Medical Association.

To support AMA-ERF is one of our more important activities and the members-at-large as well as the county auxiliaries have been generous in their contributions.

The Medical Society is probably not as aware as are Auxiliary members that our number of members-at-large has long been of concern to the Woman's Auxiliary to the American Medical Association which has urged the organization of these members into county auxiliaries. Last Fall we appointed a committee comprised of State Past Presidents, County Presidents, members-at-large and members active at the county level, to study the desirability of organizing a Providence auxiliary. The committee gave a great deal of thought and study to this matter, and concluded that to organize Providence is not feasible since it is disproportionately large and would, in effect, disrupt the effective functioning of the State Auxiliary. This report will be submitted to the National Auxiliary and will, we hope, clarify the Rhode Island situation.

May we now express our appreciation to the Rhode Island Medical Society and to its "right arm," Dr. John E. Farrell, without whom we couldn't function. As we begin our twenty-first year, we pledge to the Rhode Island Medical Society the continued and enthusiastic support of its Woman's Auxiliary.

*An Address delivered at the 156th Annual Scientific Assembly of the Rhode Island Medical Society and Auxiliary, at the Sheraton Biltmore Hotel, Providence, R.I., on May 9, 1967.

GENERAL MEETING OF THE RHODE ISLAND MEDICAL SOCIETY

May 9, 1967

A general meeting of the Rhode Island Medical society was held on Tuesday, May 9, 1967, during the 156th Annual Scientific Assembly held in the ballroom of the Sheraton Biltmore hotel in Providence.

The meeting was called by the President at 8:40 p.m. There were no resolutions or proposals presented.

The Secretary reported on the election of Officers and Standing Committees by the House of Delegates of the Society at a meeting held on April 19, 1967. He reported that the following officers had been chosen to serve the Society until the annual meeting in 1968:

Stanley D. Davies, M.D., of West Warwick

President

F. Bruno Agnelli, M.D., of Westerly

Vice President

John J. Cunningham, M.D., of Pawtucket

President-Elect

John A. Dillon, M.D., of Providence

Treasurer

Stephen J. Hoyer, M.D., of Pawtucket

Secretary

Doctor Davies was escorted to the rostrum by Drs. William A. Reid and Stanley Grzebien, and he expressed his appreciation for the honor given him to head the medical profession in Rhode Island for the next twelve month period.

The meeting was adjourned at 8:50 p.m.

Respectfully submitted,

STEPHEN J. HOYE, M.D.

Secretary

THE 108th PRESIDENT OF THE SOCIETY

Dr. Stanley D. Davies, a practicing obstetrician and gynecologist in West Warwick, was installed as the 108th President of the Rhode Island Medical Society at its 156th Annual Scientific Assembly held at the Sheraton Biltmore Hotel. He succeeded Dr. Harry E. Darrah, Director of Medical Education at Roger Willsm General Hospital.

Doctor Davies has been chief of obstetrical services at Kent County Memorial Hospital, and he is a consulting senior surgeon at Lying-In Hospital where he served for years as chief surgeon in obstetrics and gynecology.

He is a native of Waterville, New York, a graduate of Syracuse University, and also of the Medical School of the same University. He interned at

Rhode Island Hospital, and he served a residency at Lying-In Hospital prior to establishing private practice in West Warwick. He has served as treasurer, secretary, and president of the Kent County Medical Society, and he has been Chairman of the State Medical Society's Committee on Maternal Health for several years.

WESTERLY PHYSICIAN VICE PRESIDENT

The new Vice President, Dr. F. Bruno Agnelli, a native of New York City, has been in the general practice of medicine in Westerly since 1933. A graduate of Loyola College, he went to Europe for his medical school training, and he was graduated from the University of Naples Medical School. After an internship and a residency at the Knickerbocker Hospital in New York he established his practice in Rhode Island. He served with the Army Medical Corps during World War II.

Doctor Agnelli is health officer in Westerly, and he also holds medical positions as a school physician, as a medical examiner, and as surgeon to the police and fire departments. He is a past president of the Washington County Medical Society.

GENERAL PRACTITIONER PRESIDENT-ELECT

Named to the office of President-Elect to succeed Doctor Davies as head of the State Medical Society next year was Dr. John J. Cunningham, who has been engaged in the general practice of medicine in Pawtucket since 1956.

A graduate of Providence College in 1947, Doctor Cunningham completed his medical education at Tufts University Medical School. He interned at Pawtucket Memorial Hospital and also at the Veterans Hospital at Rutland, Massachusetts for two years. Then followed a residency in obstetrics and gynecology at St. Elizabeth's Hospital in Boston. A former president of the Pawtucket Medical Association, Doctor Cunningham has been that Association's representative on the Council of the State Medical Society for the past two years. He was a member of the School Committee of the City of Pawtucket, 1958-64, and Chairman in 1962.

SECRETARY AND TREASURER REELECTED

Dr. Stephen J. Hoyer of Pawtucket was re-elected for his second term as Secretary, and Dr. John A. Dillon of Providence was re-elected for his fourth successive term as Treasurer. Doctor Hoyer is surgeon-in-chief at Pawtucket Memorial Hospital, and Doctor Dillon is on the active staff of the Department of Medicine at Rhode Island Hospital.

OFFICERS AND STANDING COMMITTEES ELECTED BY THE HOUSE OF DELEGATES

April 19, 1967

President _____ STANLEY D. DAVIES, M.D.
 Vice President _____ F. BRUNO AGNELLI, M.D.
 President-Elect JOHN J. CUNNINGHAM, M.D.
 Secretary _____ STEPHEN J. HOYE, M.D.
 Treasurer _____ JOHN A. DILLON, M.D.
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 members, ex-officio)

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PUBLICATIONS

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 Bertram H. Buxton, Jr., M.D.
 John A. Dillon, M.D.
 Herbert Fanger, M.D.
 John F. W. Gilman, M.D.
 Peter L. Mathieu, M.D.
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PUBLIC LAWS

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 Albert S. Anderson, M.D.
 Carl DeLuca, M.D.
 William J. MacDonald, M.D.
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 Leonard Staudinger, M.D. (Woonsocket)
 George H. Taft, M.D.
 Armand D. Versaci, M.D.

PUBLIC POLICY AND RELATIONS

Stanley D. Davies, M.D., *Chairman*
 John J. Cunningham, M.D.
 Stephen J. Hoyer, M.D.
 William A. Reid, M.D.
 Harry E. Darrah, M.D.

SCIENTIFIC WORK

Americo A. Savastano, M.D., *Chairman*
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 Harry E. Darrah, M.D.
 John A. Dillon, M.D.
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STANLEY D. DAVIES, M.D.

of West Warwick

President of the Rhode Island Medical Society

1967-1968

PRESIDENT'S MESSAGE

At this time it is both customary and appropriate for the new President to express his appreciation for the honor bestowed upon him by the membership, and to convey some of his thoughts on current issues.

During the past year, as President-elect, I had the opportunity of attending many meetings, including those of the Council and the House of Delegates, and to observe something of the tremendous work carried on by the Society.

I have much to learn, and I shall be very thankful for the help of our many experienced committees and the executive staff in coping with the day to day problems that are certain to arise. Doctor Darrah, our retiring President, has probably completed one of the most important years in the history of the Society. It has been a year of challenge, a year in which we have witnessed the intervention on a major scale by government in medicine. Few of the members, I am sure, realize the amount of time that Doctor Darrah has given to the office of President. I have admired his ability to handle every situation with finesse and tact, and it will be difficult to fill his place in the service of the Profession.

The increasing participation of Government, both federal and state, in the provision of the costs for health care makes my task and that of some of our major committees more and more important and difficult. The Johnson Administration and the 89th Congress have passed many major bills involving grants and assistance for medical care, medical education, medical research, and also health care in all its ramifications for beneficiaries of the poverty programs. The impact of all these programs will continue to have a profound effect on medical practice.

This month will mark the completion of the

first year of operation of Medicare, the medical care program for the elderly made possible under Title 18 of the amended social security law. Over all the program has some fine features, and the freedom to select one's own physician and to be treated by him has been guaranteed to the beneficiaries. Our House of Delegates reviewed the proposed amendments to the law for 1967, and I urge every member who has not read the report published in the May issue of the Rhode Island Medical Journal to do so promptly that he may be clearly informed of the position of his Society on this vital legislation.

Title 19 of the social security law — the so-called Medicaid Program — has proved more complex, and therefore subject to more controversial issues. Since it is a matching fund program with the various states, the involvement of local state funds stimulates rules and regulations involving payment of reasonable charges, income limits for beneficiaries, and control by a state agency. These and other factors create problems that call for arbitration and adjudication, requiring a close liaison between the medical society and our state governing agencies. One of our major problems in this program is to see that the benefits accrue to those citizens who are indigent or deprived. We are all aware of the fact that there are many planners who would like to see the trend of government paid health care extended until the Government controls and pays for services to everyone.

However, the American people by tradition are accustomed to earning, and paying, their own way. I feel confident that if we conscientiously continue to give our patients the best of medical care and service there will be no real need for further progressive interference by Government in the private practice of medicine.

STANLEY D. DAVIES, M.D.



F. BRUNO AGNELLI, M.D.

of Westerly

*Vice President of the
Rhode Island Medical Society*

1967-1968



JOHN J. CUNNINGHAM, M.D.

of Pawtucket

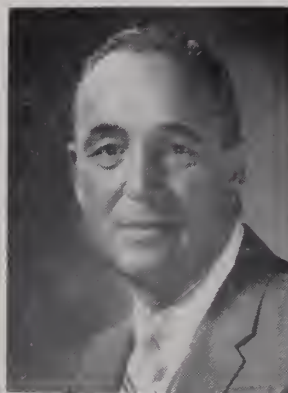
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1967-1968

OFFICERS, 1967-1968, THE RHODE ISLAND MEDICAL SOCIETY



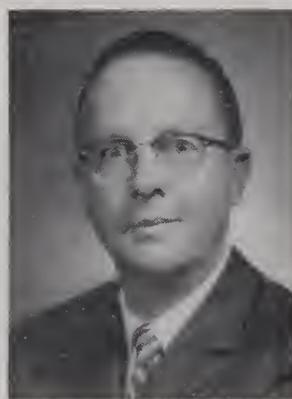
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THE BRAIN DRAIN AND AMERICAN RESPONSIBILITIES

Over the past eight years nearly 125,000 of Europe's graduate physicians have sought admission to the United States. Only a fraction of the 15,000 to 20,000 young doctors who seek entry each year actually arrive. Records of the Association of American Medical Colleges show that of all who take the Educational Council for Foreign Medical Graduates (ECFMG) examination, only about one-fifth are accepted. Of the 4,000 or so who come from Europe annually to work and study in American medical schools and hospitals, a large number never return to their native lands.

Embracing all nationalities — German, French, Austrian, Swedish, and especially English — their loss has created a major difficulty for Europe. The problem exists equally in the Middle East and the Far East. While Europe and Asia are also losing engineers, chemists, physicists, and other scientists and technicians to the United States, the major exodus seems to be in medicine.

The implications of this scientific emigration, popularly called the "brain drain," has European leaders greatly concerned. Has the continent become underdeveloped scientifically and technologically in comparison with the United States? Is the gap growing? Evidence indicates that the best answer to both questions is affirmative. Even the Russians, who do not permit emigration, feel that the limitation of scientific intercourse in Europe has affected adversely their own scientific programs. Premier Kosygin of the Soviet Union recently proposed in France a "technological alliance" between Russia and Western Europe to end what he styled the dependence of Europe on advances made in the United States.

The emigration of young physicians from Great Britain has threatened its National Health Service with collapse. About one-third of Britain's medical graduates leave the country each year, while the number of medical students going into training has been steadily declining. Doctors have been imported from Pakistan and India to fill the gap.

One cause is money, namely the poor pay of British interns. Of much greater impact, however, is the discouraging "scientific climate." Over-regulation stifled scientific inquiry and suppressed the mood of stimulation.

While this may be somewhat of an oversimplification, the fact is that the young and scientifically oriented have desired in large numbers to vacate Europe. Something in the scientific climate must be inadequate, if the medical school graduates of Europe have turned since World War II to the United States to seek the mainstream of medical science.

The United States has now emerged in the forefront of medicine. Despite efforts by critics to downgrade the image of American Medicine, the United States has continued to improve its standing. Such critics, basing their argument on one or another statistic, contend that medicine in America is not very good. Since the infant mortality rates and the average life span in certain small European nations are somewhat better than is indicated by our statistics, they maintain that these nations have better medicine. Such factors as genetic makeup, economic conditions, educational levels, and other matters including abortion laws are totally ignored.

Medical and scientific quality cannot be judged on statistical tables taken out of context. Rather it must be judged on the basis of the sum total of numerous factors. Based on many criteria the United States is clearly leading in medical science, as these young physicians instinctively know. In the 21 years since World War II, 23 Americans have been awarded the Nobel Prize in medicine and physiology, more than the combined total for all other countries of the world. In the same period, more than half of all major new drug discoveries were developed in this country. Eighty per cent of all prescriptions currently written could not have been written ten years ago, since the drugs did not then exist.

Medical progress must not be measured only by laboratory advances. It must also be measured in terms of people, disease, and facilities. While America was building 750 hospitals, England in the same period built one. The death rate from cancer in America is well below that of Western Europe. The same holds also for tuberculosis, pneumonia, strokes, and influenza, in all of which the per capita death rate in America is lower than that of Western Europe.

While nationality cannot be assigned to knowl-

edge the rest of the medical world justifiably looks to the United States for leadership in applying and teaching that knowledge. The "brain

drain," by no means an accident, carries with it serious responsibilities as well as evident advantages for the United States.

THE LABORATORY LOAD — IS AUTOMATION THE SOLE SOLUTION?

It is a well documented fact that many laboratories have doubled their work in the seven years 1960-1967.¹ In the same period the number of patients studied has risen by only one quarter. The increased load is sometimes attributed to rapid advances in medicine, the population explosion, and the advent of Medicare and Medicaid.

Rather than accept a well worn cliché as to the causes of this rise, like "rapid advances in medicine," it behooves us to look critically at the causes and remedies of "the laboratory utilization explosion."

Modern medicine is dependent on "adequate" laboratory services; but "adequacy" of a laboratory includes the manner in which it functions besides its technical competence. Studies have shown that the increase in laboratory work per patient is greater than the increase in the actual number of patients. Is this disproportionate increase in the amount of laboratory work per patient an indication of a more precise approach to clinical diagnosis and treatment, or is it the result of non-critical use of the now available diagnostic services?

There is no doubt that some of the increase is the result of the latter, perhaps in part stimulated by the zealous intern or resident in his learning stage. However, we note a shortened patient stay and fewer outpatient visits per new outpatient. This improvement is partly due to the contribution of the laboratory to early diagnosis and treatment. Hence some of this increase in laboratory demands is justified.

Help for the laboratory dilemma may be obtained by automation, improved organization, and computer data processing. Automatic equipment is performing a yeoman's task in handling the load of the large volume "routine" tests, but the instruments presently available are in need of improvement of their accuracy at least in some of their tests.

It behooves laboratories to operate at optimum efficiency, a goal more readily reached by good organization. Thus, in one large hospital in the Providence metropolitan area the biochemistry laboratory is divided into sections for screening, diagnosis, emergency and special tests. The advantage of this system is that the nature of the test can be tailored to the job that must be done. For example, the pediatric diagnostic laboratory will analyze blood glucose by an enzymatic time-consuming technique that insures high specificity and accuracy, while the screening section uses automated, less accurate techniques. The high volume diagnostic section is not interrupted in its operation by stat requests which are done in the emergency section on an individual basis.

The computer can be helpful in checking quality control as well as in reporting and billing. A cautious optimism may be expressed that the combination of automation, efficient organization, and computer programming will be able to handle the challenge of the burgeoning laboratory load.

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UNCOMMON CLUES TO DIABETES

Clinicians at regular intervals are astonished when long familiar patients on routine urinalysis turn up with major glycosuria unexpectedly. This denouement has occurred with increasing frequency in recent years with widespread use of thiazide drugs for congestive heart failure and hypertension.

Even when a careful history reveals familial diabetes, or babies of large birth weight, the time of appearance of glycosuria can be surprising. Yet this late appearance of symptomatic diabetes recognized by the classical "polys"—polyuria, polydipsia, and polyphagia—can often be anticipated in the subclinical stage of chemical diabetes.

Under the above title of uncommon clues to diabetes, Doctor Maxwell Spring in "Consultant" has

listed ten leads that suggest a check for urine sugar and postprandial blood sugar. He finds diabetes associated with impotence, in patients with blurred vision, in many with Dupuytren's contracture, and frequently in the peripheral neuropathies. He also describes nephrotic syndrome, gout, myocardial infarction, peripheral vascular disease, vague abdominal complaints, and stroke-like symptoms as symptom patterns associated with diabetes.

It is interesting that this list of clues represents conditions often found in well diagnosed diabetics as complications of the disease. The emphasis here is that these complications may be the initial or presenting symptoms of genetic disease hidden from view by homeostatic mechanisms that prevent gross breakdown of carbohydrate tolerance.



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Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

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Precautions: Tuinal should be used cautiously in pa-

tients with decreased liver function, since prolongation of effect may occur.

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IS METHADON A BREAKTHROUGH?

It is rewarding news that there is now available a treatment that offers help to the drug addict. A new drug, Methadon, blocks the euphoric effect of heroin and of other narcotic drugs by an effect termed "blockade." The fact that this medication is taken by mouth, is safe, and creates no other medical problems, is indeed a real achievement.

In the new era in the treatment of drug addiction detection of addicts and their rehabilitation is emphasized. This is in contrast to the previous era in which attempt was made to reduce the production of narcotics and of other habit forming drugs, together with the apprehension of smugglers and peddlers of dope. Urban areas are the most likely sites for activity of this sort, since addiction is extremely rare among the rural population.

A rapid screening test, the administration of nalorphine intramuscularly, produces mydriasis in the narcotic addict; if no narcotic is present, miosis develops. This test remains positive for 3 to 4 hours after drug use, even after a single injection of morphine. The value of such a test is apparent; suspected positive tests can be verified by standard chemical tests on the urine. H. W. Elliott of the University of California points out that there may be false negatives as a result of emotion and other stimuli on the pupil, but these are not significant.

Dole, Nysander, and Kreek introduced Methadon, which is a synthetic narcotic lacking the toxicity of heroin. Methadon may be substituted for heroin and has proven successful in "90 per cent" of the 250 patients who entered their program.

These patients are now living socially acceptable and productive lives on a maintenance dose, taken by mouth. They are treated on an out-patient basis. Ten per cent have been considered as treatment failures.

Any treatment which produces a high recovery rate of this order from such strongly addicting drugs is worthy of praise. Despite the high percentage of success, it must be realized that, in fact, another narcotic drug of lesser toxicity is being substituted for the heroin. Dole states that Methadon prevents the patient from getting "high" if he should revert back to the use of heroin and keeps him from getting "sick" from the withdrawal of heroin, thus stabilizing his condition. Total withdrawal of the Methadon has not yet been attempted.

Doctor Nysander has wisely stated that, "while the drug relieves heroin addiction, we have an excellent rehabilitation program that helps return the addict to society," She has reported, in a further experience, 276 New York addicts freed of the heroin habit without a single re-addiction. All have remained on the maintenance dosage of Methadon.

It must be remembered that elimination of heroin usage and other drug addiction is only the first step toward rehabilitation. In our view this first step is essential but not sufficient. We believe that any treatment to be rated as successful must free the patient from all addiction, so that he can become a socially productive and stable member of the community without drug dependency.

THERMOGRAMS, THERMODYNAMICS, AND INERTIA

Jacob Gershon-Cohen, M.D., Professor of Radiologic Research at Temple University and Director Emeritus of the Division of Radiology at the Albert Einstein Medical Center in Philadelphia, is well known for his popularization of mammography. He had much to say about this, and even more about thermograms in medical practice in recent addresses at the Rhode Island Hospital. The Scientific American of February 1967 featured an article by him titled Medical Thermography, using a thermogram in color for its cover illustration. The basic principles of thermography are well outlined in this paper. The clinical applications are described in the medical literature.

The fascinating history of using a sick person's temperature as an aid in diagnosis is relevant. As late as the Civil War, thermometers were not part of a medical officer's equipment or widely used by private physicians. Galileo invented the thermometer in 1595, and Sanctorius began to use it; but not until the 18th Century did the Dutch clinician

Boerhaave, whose biography was recently reviewed in this JOURNAL, put thermometry in clinical practice in his small university hospital in Leiden. Now with tremendous sophistication we can use body temperatures and differential temperatures at various sites in the body to determine disease there, because it is possible to measure and record the temperatures simply by means of infrared radiation. This is the present major interest of Gershon-Cohen. It appears that a new and valuable tool in diagnosis is at hand.

Concerned as he is in thermography with the Second Law of Thermodynamics, which states that heat can pass only from a warmer to a colder body, the Professor has also concerned himself with other physical laws. Much of what he had to say in his recent talks related to Newton's first law of motion, that having to do with inertia, although he did not specifically mention it. Doctor Gershon-Cohen deplored what has been described as the "time lag" in the application of new ideas and

techniques in medicine. In other talks and writings, he has revealed a high intellectual concern with "the chaos in medical education" and with the problem of the diffusion of knowledge and the application of new techniques. We too have been impressed that inertia prevails, not only in the physical world, but also in the world of ideas and human activities. "A body at rest will remain at rest unless acted upon by some external force." While inertia in human activity may at times prevent us from running off in the wrong direction any more violently than we do, it can also be a

grave hindrance to progress.

Our concern with the diffusion of new knowledge is real. We must recognize the universality of the influence of the law of inertia in human affairs. We must consciously and purposefully bring such forces as are needed to overcome our inertia in applying basic scientific developments to our daily needs. Undoubtedly Gershon-Cohen speaks feelingly of this inertia because of the difficulties he has had in bringing into general use the techniques of mammography and thermography to the development of which he has contributed so much.

SURGERY IN ALCOHOLIC PANCREATITIS

Chronic relapsing pancreatitis is associated with chronic alcoholism in 40 to 60 per cent of cases, depending upon the hospital population from which the sample is drawn. The remaining cases, whether associated with biliary disease or of unknown etiology, present a problem of somewhat different dimensions.

It is generally observed that the alcoholic type of pancreatitis will relapse as long as the patient indulges his alcoholic addiction. Options in the management of acute pancreatitis, pancreatis abscess, and pseudocyst are few. Acute pancreatitis is best treated by gastric drainage and anticholinergic drugs. Pancreatic abscess usually requires external drainage, while pseudocyst is managed by internal drainage, either with transgastric cystogastrostomy or Roux-en-y cystojejunostomy. Both have advocates and both probably have a proper place. Recent studies indicate that the mortality for the latter procedures is lowest if operation is delayed at least three months after an acute attack of pancreatitis.

The essence of the problem, however, is the surgical management of the chronic relapsing form. While the late Henry Doubilet and currently George Nardi have contributed much by their studies of sphincterotomy in chronic pancreatitis of biliary or Vaterian papillary origin, its value in the alcoholic variety is questionable. Pancreatectomy, advocated by Kenneth Warren, produces diabetes and poor fat digestion. The development of longitudinal pancreaticojejunostomy by Puestow and others is a significant advance in the surgery of chronic pancreatitis. It is in effect a rational extension of distal pancreaticojejunostomy, but permitting drainage of the whole of the major pancreatic duct. The operation when first described by Puestow seemed formidable indeed. But its steps have now been standardized and its mortality and morbidity brought within reasonable bounds. It is effective in draining the "Chain of Lakes" ductal lacunae which neither sphincterotomy nor distal pancreaticojejunostomy can do. Cox and Gillesby have recently reported a

series of 32 such operations, added to the 29 cases originally reported by Gillesby and Puestow from the Chicago area. In a follow-up of 8 to 48 months of the more recent series, pain was relieved in all patients. Pancreatic exocrine function returned in about six months with gain in weight and disappearance of steatorrhea. Not one patient, in fact, abstained from drinking. Goldman of San Francisco reported an additional 24 cases of longitudinal pancreaticojejunostomy with complete relief of pain and gain in weight in 70 per cent of cases.

An interesting sidelight in Gillesby's report is his description of "smoke," favored beverage of the Skid Row characters in Chicago. A cocktail mixture containing one pint of a paint and varnish remover (Solax, containing ethyl alcohol, denatured grade methyl alcohol, aviation gasoline, ethyl acetate, and methyl isobutyl petone) in a quart of orange drink is quaffed in great quantities.

Additional reports of cases of longitudinal pancreaticojejunostomy and longer follow-up are necessary to confirm these early but significant results. Evidence thus far, however, seems to warrant further trial of this promising, if formidable, operation.

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HOUSE OF DELEGATES of the RHODE ISLAND MEDICAL SOCIETY

Report of Meeting Held on April 19, 1967

A meeting of the House of Delegates of the Rhode Island Medical Society was held at the R.I. Medical Library on Wednesday, April 19, 1967. The meeting was called to order by the President, Dr. Harry E. Darrah, at 8:12 p.m. The following delegates were in attendance: Drs. Charles E. Millard, John M. Vesey, Edmund Billings, Earl F. Kelly, Rudolph Jaworski (alternate for Dr. E. J. Mara), Alton Paull, Freeman B. Agnelli, James A. McGrath, Harry E. Darrah, Michael DiMaio, Stephen J. Hoyer, John A. Dillon, William A. Reid, John T. Barrett, J. Robert Bowen, Joseph Caruolo, Nathan Chaset, Warren W. Francis, Frank Frantauono, Alvin G. Gendreau, John F. W. Gilman, Seebert J. Goldowsky, John P. Grady, Herbert F. Hager, Milton W. Hamolsky, James Hardiman, Joseph Lambiase, Robert V. Lewis, Thomas Littleton, Peter L. Mathieu, William McDonnell, James B. Moran, Gustavo A. Motta, Raul Nodarse, Edwin B. O'Reilly, Arnold Porter, Carl S. Sawyer, Richard P. Sexton, Stanley D. Simon, John Turner II, Albert Tetreault (alternate for Dr. Henry Tyszkowski), Banice Webber, Elihu S. Wing, Jr., and Edmund T. Hackman.

Delegates absent were: Drs. Joseph Barrett, H. Gerald Rock, Joseph E. Wittig, Charles Dotterer, Charles Serbst, Robert C. Hayes, Joseph Ruisi, Roger Fontaine, Leonard Staudinger, Stanley D. Davies, Joseph E. Cannon, Henry B. Fletcher, William J. MacDonald, Raymond E. Moffitt, and Ralph D. Richardson.

Also present were Drs. Albert Anderson, David J. Fish, Joseph Karas, and Francis B. Sargent, and John E. Farrell, executive secretary.

Minutes of Previous Meeting

The Secretary noted that the minutes of the January meeting of the House had been written and distributed to the members.

Action: A motion was made, seconded, and voted that the minutes of the January 25, 1967 meeting of the House of Delegates, as submitted, be approved and placed on record.

Report of the Secretary

Dr. Stephen J. Hoyer, Secretary, reviewed his report, copy of which was included in the handbook for the meeting, and he answered questions on various items therein.

Action: A motion was made, seconded and voted that the report of the Secretary, as submitted, be approved and placed on file.

Report of the Treasurer

Dr. John A. Dillon, Treasurer, reviewed his report as published in the handbook, and answered inquiries regarding various items in his report.

Action: A motion was made, seconded and voted that the report of the Treasurer, as submitted, be approved and placed on file.

Recommendations from the Council

The Secretary presented the recommendations from the Council, as noted in the handbook.

1. *Health Fair*

The council recommends to the House that it consider the advisability of having the Society stage a Health Fair in 1969, similar to the one held in 1962, to be supported by a special financial assessment of the membership; and, if the recommendation is accepted, the Council suggests that the House establish a Health Fair Planning Committee.

Action: A motion was made and seconded to delete from the recommendation the phrase "to be supported by a special financial assessment of the membership."

Action: A motion was made, seconded and voted to amend the amendment to restore the phrase to the recommendation.

Action: A motion was made, seconded and voted that the House of Delegates approve the recommendation regarding a Health Fair.

2. *Social Security Amendments*

The Council reviewed the Social Security Amendments of 1967 as proposed by the American Medical Association, and it has expressed its comment on the proposals, and now submits the report to the House for its consideration and approval, and for authorization to submit the report to the members of the Rhode Island Congressional Delegation as the opinions of the Society.

Action: A motion was made, seconded and voted that the House approve of the recommendations, and of the report and comments on Social Security Amendments of 1967, as submitted in the handbook, and that the action of the House be transmitted to the Rhode Island Congressional delegation.

3. *Speaker and Vice Speaker of the House*

Council recommends that the House consider the appointment of two of its members, one to be Speaker, and one to be Deputy Speaker, for such terms of office as the House may determine.

Action: A motion was made, seconded and voted

that the House approve of the recommendation, and that it authorize the Council to prepare proper bylaw changes for a Speaker and Vice Speaker, and to submit such bylaw proposals to the House.

4. *Slate of Officers*

The Council submitted a slate of nominees for Officers and Standing Committees for 1967-68.

The President reported that Dr. John F. W. Gilman had requested that his name be withdrawn as a member of the Medical Economics Committee.

Action: Dr. Banice Webber was nominated to fill the place on the slate of nominees of Doctor Gilman.

There were no other nominations.

A motion was made, seconded and voted that the slate of Officers, and Standing Committees, as amended, be elected. Copy of the amended slate is made part of the official minutes of the meeting. (See Page 413)

Public Relations Committee

A motion was made, seconded and voted that the committee on Public Policy and Relations explore the possibility of a full, or part time, public relations counsel, and to report on the matter to the House.

There were no communications or resolutions to be presented, and President Darrah called for consideration of Reports of Committees.

Special Report of the Advisory Committee to the State Health Department on Emergency Services

Dr. Joseph Karas the Society's representative on the special advisory committee to the State Health Department on Emergency Services, read and discussed the committee report which was published in the handbook for the Delegates.

Action: A motion was made and seconded to accept the report and the recommendations therein.

An amendment was made and seconded to accept the report but not to approve of the recommendations. By a 22-12 vote the amendment was adopted.

A motion to accept the report without the recommendations was made, seconded and voted.

The Future of the Private Practice of Medicine

The President noted that the report of the Committee on the Future of the Private Practice of Medicine was included in the handbook.

Action: A motion was made and seconded that the report be accepted and placed on file without approval of the House.

The motion was discussed.

A motion was made and seconded to vote on the question. The motion to vote was defeated.

An amendment was made and seconded that the report be accepted and approved. On a division vote, 20 to 12, the amendment was voted.

A motion was made, seconded and voted to delete the first paragraph on page 3 of the report.

A motion was made and seconded to approve and place on file the report of the committee as amended. On a division vote, 17 to 15, the motion was voted.

Industrial Health

The Secretary reported that the chairman of the Committee on Industrial Health had filed a report too late to be included in the handbook for the meeting. He read the report, as follows:

The Industrial Health committee held a meeting on Monday, March 6, 1967. Due the unexpected death of the late Dr. Walter Hayes, the Committee Chairman, the purpose of this meeting was primarily to complete any unfinished business before the committee. The committee centered its attention at this meeting on the request from the Industrial Nurses Society that a standard set of medical directives be established for all Industrial Nurses in the State of Rhode Island. This matter is currently receiving attention and a joint meeting between this committee and the Industrial Nurses committee will be held in May of this year to establish a suggested set of medical directives for Industrial Nurses.

ROBERT P. SARNI, M.D.

Chairman

Action: A motion was made, seconded and voted that the report of the Industrial Health committee, as submitted, be approved and placed on file.

Mediation Committee

Dr. Francis B. Sargent, chairman of the Mediation Committee, gave a brief summary of the work of his committee.

Medical-Legal

Dr. Nathan Chaset, chairman of the Medical-Legal Committee reported that two meetings had been held with representatives of both committees. He stated that a panel of physicians had been invited by the Bar Association to participate in its annual program in June at the University of Rhode Island, and that a joint meeting on medico-legal matters was being planned with the Providence Medical Association, the state medical society, and the Bar Association in the fall.

Action: A motion was made, seconded and voted to approve the report of the Medical-Legal Committee.

Medical Economics

Dr. Stanley D. Simon discussed the report of his committee, copy of which was distributed to the members of the House, relative to the impartial examiner program of the State Temporary Disability Insurance division.

(Continued on next page)

Action: A motion was made and seconded to accept the report and approve the recommendations made in it.

An amendment was made, seconded and voted that the fee for a complete routine physical examination or specialty examination be \$25, for an EKG with interpretation, \$20, and for a sigmoidoscopy, \$20, and the X-ray schedule as established under Title 19 for Rhode Island.

A motion to adopt the report with recommendations as amended was made, seconded and voted.

A motion was made, seconded and voted that the Temporary Disability Insurance division be informed that the adoption of the fees stated is approved pending the adoption of usual and customary fees as will be requested of all governmental agencies.

Mental Health

Dr. David Fish, chairman of the Mental Health Committee gave an oral report in which he expressed the committee's concern that Rhode Island lags behind other states in the development of mental health programs. The committee feels that much of the problem rests with the state social welfare department which operates such a large and cumbersome series of state programs that it is unable to handle the mental health issues satisfactorily. A reorganization is needed, he stated, either by putting the mental health department under the Health Department, or by having a top flight physician to

head the division and to secure personnel to achieve outstanding programs.

Action: A motion was made, seconded and voted that the report of the chairman of the mental health committee be received as an informational report.

Public Laws

In the absence of Doctor Davies, chairman of the Public Laws Committee, John E. Farrell, executive secretary, reviewed the actions taken this evening by the committee on Public Laws relative to legislation of a health and medical nature before the General Assembly.

Physicians Service

Dr. Arnold Porter, president of Physicians Service, reported on the hearings relative to the rate filings for 1967 by Physicians Service, and discussed the actions of the state director of business regulations.

His report was an informational one, and no action was taken.

Other Committee Reports

Doctor Darrah commended the chairmen of the committees for their work, and he noted that many chairmen had filed informational reports that warranted the attention of every member of the Society. On separate motions the reports of the following committees were approved and placed on file: Child-School Health, Perinatal Mortality, Disaster, Medical Aspects of Sports, Physicians and Carriers Workmen's Compensation Liaison Committee, Library and Librarian, Scientific Work and Annual Meeting, Maternal Health, Medical Care Programs, Publications, Science Fair, and Social Welfare.

The report on Social Welfare was approved with commendation to the Chairman for his excellent summary of the AMA Socio-Economic Conference.

Reconsideration of Tabled Report

Dr. William A. Reid moved for reconsideration of the report, and in particular the resolution on Page 3, of the Ad Hoc Committee Appointed by the President to Consider the Dr. Charles Potter Resolution which was tabled at the January meeting of the House.

The motion was seconded.

On a division vote, 17 to 13, the motion to reconsider was defeated.

Additional House Meetings

A motion was made, and seconded, that the Council explore the possibility of more frequent meetings of the House, and if necessary to recommend a bylaw change to provide for such meetings.

An amendment was made, seconded and voted that the Society also notify all members of the dates of House meetings in advance so that members interested may attend the sessions.

The amended motion was voted.

(Continued on Page 428)

"BUT MAESTRO

all those people out there! I'm scared!" The young soprano, waiting for the curtain to rise on her New York debut, trembled. "Now, now, my dear," soothed the great impresario, "never mind all those people. I shall be in the back row. Just walk out there and sing to me! Keep cool!"

Ah, she thought, that was it! Cool — like Warwick Club Pale Dry Ginger Ale, available in the full 32-ounce quart bottle! It sings in the glass...



Look how many ways

Thorazine[®]
brand of
chlorpromazine
can help

	Tranquilizer	Potentiator	Antiemetic
Agitation	●		
Alcoholism	●		●
Anxiety	●		
Cancer patients	●	●	●
Severe neurodermatitis	●		
Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. **Contraindications:** Comatose states or the presence of large amounts of C.N.S. depressants. **Precautions:** Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. **Side Effects:** Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with

I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

Smith Kline & French Laboratories 

HOUSE OF DELEGATES

(Continued from Page 426)

Appreciation from the President

The business of the meeting concluded, Doctor Darrah expressed his appreciation to the members of the House for their patience, understanding and support during his term of office, and he recorded his thanks to all committee chairmen and members for their fine work throughout the year.

With an enthusiastic round of applause for the President, the House rose and adjourned at 11:20 p.m.

Respectfully submitted,
STEPHEN J. HOYE, M.D.
Secretary

REPORT OF THE SECRETARY

Since the January meeting of the House of Delegates the Council has taken the following actions:

1. It has approved the following appointments by the President:

As the Society's representative on the Program Committee for the New England Postgraduate Assembly: Dr. A. A. Savastano.

As a member of the Society's Committee on Nursing: Dr. Thomas Head.

As the Society's representative to a meeting sponsored by the National Foundation to consider a public information program concerning prenatal care: Dr. Bertram H. Buxton, Jr.

As the Society's representative to the planning committee for the Radiation Therapy Center: Dr. Stephen J. Hoyer.

As a member of the Joint Committee of the Society and Insurance Carriers relative to workmen's compensation problems: Mr. Lawrence Walsh, representing self-insurers.

2. Approval was given for the Society to be a co-sponsor with the State Health Department and the U.S. Public Health Service, for a conference on hospital infections.

3. Approval was given the action of the Delegate of the AMA in notifying the AMA that any action regarding the group disability program for physicians be referred to the AMA House of Delegates at its June meeting.

4. Approval was given to sponsor a mailing of the medical program of scientific lectures to be given on May 17 as part of the Italian Festival.

5. Opinion of legal counsel was received regarding the confidential nature of medical records maintained in a hospital. (See Appendix A).

6. The Secretary was instructed to notify district societies that they should instruct their members to use all possible means to prevent the pub-

(Continued on Page 429)

Tandearil® oxyphenbutazone

Tandearil in Painful Shoulder

Therapeutic Effects: Stiffness and pain may diminish within 2 days, and full mobility may be restored within a week. These effects are obtained with oxyphenbutazone alone or combined with physiotherapy or local hormonal injections. The drug is usually well tolerated and does not affect pituitary-adrenal function or immune response.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: 600 mg. daily in divided doses for 2 to 3 days; 300 mg. daily thereafter. Usual duration of therapy: 2 to 7 days.

Availability: Tablets of 100 mg. 6562-VI(B)R

For complete details, please refer to full prescribing information.



Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Geigy

Tandearil®
oxyphenbutazone

helps osteoarthritic
joints move again



Please see ad-
joining page for
brief prescribing
summary

TA-4919 PC

Sperling, I.L.: 3 Years' Experience
with Oxyphenbutazone in the
Treatment of Rheumatic Disorders,
Applied Therapeutics 6:117, 1964

Watts, T.W., Jr.: Treatment of Rheu-
matoid Disorders with Oxyphenbu-
tazone, Clin. Med. 73:65, 1966.

3 out of 4 osteoarthritics com-
pletely or markedly improved

76.9% of 407 patients

84.6% of 39 patients

Why these 7 patients with **moderate to severe anxiety** may respond better to Mellaril

1. The agitated patient.

Anxiety—particularly that beyond the range of minor tranquilizers—frequently is expressed as gross motor restlessness, fidgetiness and purposeless movements, and may erupt into aggressive behavior. Mellaril is almost a specific for those patients whose anxiety follows such a pattern.





The psychosomatic patient.

The family physician is rarely given the diagnostic luxury of a classic, textbook "anxiety state." Most often he must probe for anxiety masked by a functional disorder—or which exacerbates a somatic problem. Double-blind evaluations have demonstrated that Mellaril can be a significant adjunct in the treatment of such patients.



The patient under situational stress.

Mellaril helps the patient deal with stresses of everyday life. Nonhabituating, it can be given for extended periods of time. It does not "separate" the patient from practical problems and pressures, does not induce euphoria or a fuzziness which can compromise the ability to cope with realities. Rather, it helps the patient move more competently in his daily world by eliminating useless tension, by allowing him to conserve emotional resources and energies, and to direct them against the problems really worth worrying about.



4. The menopausal patient.

The woman who sees change of life as the end of useful life requires support from both family and family physician. Whether the psychological impact of menopause is directly related to hormonal changes, or merely coincidental, is debatable, but estrogenic therapy is frequently inadequate. Mellaril is a useful aid for these patients and, alone, or in combination with reduced estrogen dosage, will help ease the menopausal misery.



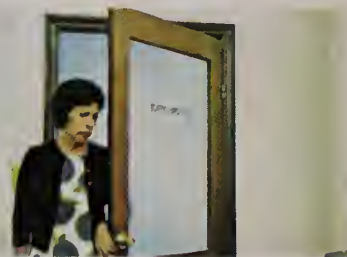
5. The previously hospitalized psychiatric patient.

Such a patient may still require the type of medication he has been accustomed to, but because he is no longer in a controlled setting the acceptable level of adverse reactions must be lower. In such circumstances Mellaril is perhaps the drug of choice.



6. The agitated geriatric.

Tranquilizer therapy in the elderly patient always involves special (or at least accentuated) problems: the possibility of drug-induced ataxia, hypotension or depression, for example, assumes an additional significance. These reactions have rarely been observed in geriatric patients treated with Mellaril.



7. The constantly returning patient.

The anxiety patient who has not responded to a minor tranquilizer is not very likely to benefit from your minor tranquilizer of second choice. A major tranquilizer, such as Mellaril, may be indicated in such patients.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

in moderate to severe anxiety, 25 mg. t.i.d.

Mellaril[®]

(thioridazine)





Bartholin's gland



Periurethral glands



Cervical glands

Flagyl[®].....

brand of

metronidazole



Seminal vesicles



Prostate gland



Bladder

Destroys Trichomonads Wherever They Are

Flagyl seeks out the sites where trichomonads hide. Only a systemic agent can. Flagyl does, selectively and effectively.

Flagyl destroys trichomonads in the inner crypts, glands and cavities of the genitourinary tract in both women and men. Consequently, Flagyl is capable not only of curing trichomoniasis in women but also of preventing reinfection.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced up to 100 per cent cure in large series of patients.

When the diagnosis of trichomoniasis is positive, Flagyl is positive.

Dosage and Administration—In women: one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men in whom trichomonads have been demonstrated: one 250-mg. oral tablet twice daily for ten days.

Contraindications—Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution—Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects—Infrequent and minor side effects include nausea, metallic taste, furry tongue and headache. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness of an extremity, joint pains, confusion, irritability, weakness, flushing, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Did Dorothy Larson show you her ankles in private? Now she shows them in public.

Your office examination would have confirmed that Mrs. Larson was up to her knees in edema. Her heart was beginning to fail. And her ankles had disappeared under an inch of salty water.

Along with digitalis, you might have prescribed Hygroton. To get rid of the edema. And to keep it from coming back. And you prescribe Hygroton the same way you usually prescribe digitalis: just once a day.

Tablet for tablet, Hygroton is just about the most effective diuretic going. And it costs a fraction of what Mrs. Larson would have to spend for equivalent therapy with short-acting diuretics.

In fact, Hygroton is an awfully nice way to treat the Mrs. Larsons in your practice. Just tell them you can get their ankles back at half price.

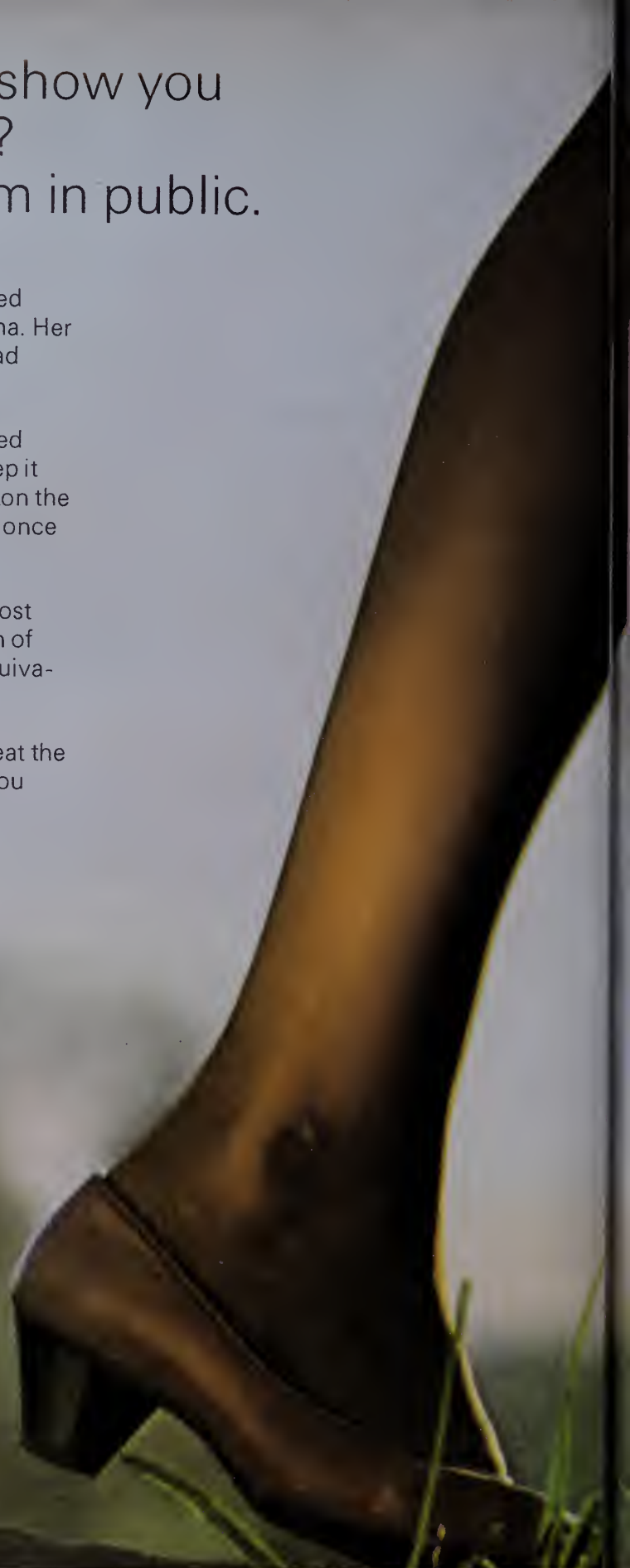
Indications: Hypertension and many types of edema involving retention of salt and water.

Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.

Precautions: Reduce dosage of concomitant antihyper-

tensive agents by at least one-half. Discontinue if BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease.





Hygroton[®]

chlorthalidone

In patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.

Effects: Dizziness, weakness, nausea, vomiting, glycosuria, hyperuricemia, headache, muscle cramps,

postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg) with breakfast daily or every other day.

Availability: Tablets of 100 mg.

6524-V(B)

For full details, see prescribing information.

...so you might say Hygroton is good public relations for Mrs. Larson

Because it gets her *out* in public in the first place.
At 43, Mrs. Larson worries about appearances and
swollen ankles don't help.

But Hygroton's cosmetic effect is only half the
story. Hygroton and digitalis therapy helps her get
back in the swing of things. Gives her a second
wind. Gets rid of the extra pillow she needed for a
good night's sleep. Now she even likes to take
walks. Just for the fun of it!

When her troubles began, Mrs. Larson thought they
were the signs of the change of life. It's a change
all right, but one you can treat. And you can count
on Hygroton to help keep her in public instead of
in the hospital.

See preceding pages for brief summary
of prescribing information.

Geigy



Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York



HOUSE OF DELEGATES

(Continued from Page 428)

lication of physicians' names in paid newspaper advertisements extolling the services by patients. The Secretary was also instructed to make known the Society's position regarding such ads to the newspapers of the State, and ask that no personal names be published in such ads.

7. The Treasurer's record and report were reviewed and approved.

8. Opinion was received from legal counsel that it would not be advisable at this time to seek legislation to protect a physician serving on a utilization committee, as such a physician would not appear to be subject to liability for his actions taken in good faith while serving on such a committee.

9. Action regarding an increase in the statutory limit of the Society's tax free status was deferred until an appraisal of the medical library can be made.

10. The incoming President was authorized to name a representative of the Society to attend a national conference on nursing to be conducted by the AMA in October at Chicago.

11. The President was authorized to name an AD HOC Committee to inform the Society what federal and/or state health programs are in existence or planned, and how the Society might influence the use of federal and state funds to make worthwhile programs most effective.

12. Drs. Thomas J. Dolan and Stanley D. Simon were nominated as the Society's representatives to serve on the advisory board of the Dr. J. E. Donley Rehabilitation Center.

13. The Council cited Dr. Darrah for his excellent leadership during his tenure as President.

STEPHEN J. HOYE, M.D.

Appendix A

LEGAL OPINION ON CONFIDENTIAL NATURE OF MEDICAL RECORDS OF PATIENTS

We have considered the questions raised in your letter. Generally, you seek a determination as to the confidential nature of the medical records of patients and their availability to persons other than the particular physician or patient involved, in certain limited circumstances. We assume that the medical records referred to are those prepared jointly by a physician and staff medical personnel of the particular hospital involved.

Initially, with regard to litigation involving a physician and his patient or others, it is quite clear that the legal liability of the former could very well be predicated on information contained in a patient's medical record of the type here under discussion. The scope of pre-trial discovery permitted by the Rhode Island Rules of Civil Procedure, Nos.

26-37 (adopted January 10, 1966), extends to *any* matter, not privileged, which is relevant to the subject matter involved in a pending action "including the existence, description, nature, custody, condition and location of any books, documents or other tangible things..." Rule 34 further authorizes the inspection, control of another party, upon a showing of good cause. The same latitude is sanctioned also with regard to actions commenced in the federal courts.

The only question, then, is whether patients' medical records (assuming them to be relevant to the subject matter of litigation) are privileged so as to fall outside the scope of the above-mentioned discovery provisions. This question, in Rhode Island, must be answered in the negative. At an early date, our Courts expressly rejected the non-disclosure privilege accorded in certain jurisdictions to the confidential communications of a patient to his physician.

Remington v. Rhode Island Co.,
37 R.I. 393, 93 Atl. 33 (1915)

Banigan v. Banigan
26 R.I. 454, 59, Atl. 313 (1904)

In those states which do recognize the so-called "physician-patient" privilege, however, it is abundantly clear that its assertion is a right personal to the patient, who may waive it at his pleasure. Consequently, even in such jurisdictions, a physician could not claim the privilege in an action instituted against him by his patient.

The other areas of inquiry contained in your letter are not "legal questions in the strict sense. Certainly, as between a physician and his patient, information contained in the medical record concerning the latter's condition and treatment is confidential in the sense that its unwarranted disclosure to others by a physician would be a serious breach of professional responsibility, at the very least. On the other hand, it would seem equally clear that a hospital may rightfully make reasonable regulations with respect to the proper performance of its authorized functions, both medical and administrative. To the extent that access to patients' medical records is a necessary adjunct to such performance, a periodic examination of these records by designated hospital administrators and by duly constituted medical committees is manifestly reasonable. To condition such access upon the consent of the physician or patient, moreover, would inhibit seriously the hospital's legitimate right to obtain the information essential to its operation and accreditation. We are informed that Rhode Island Hospital, for example, routinely permits access to patients' medical records by desig-

(Continued on next page)

nated administrative personnel, by other physicians engaged in research projects and by the Medical Records, Tissue and Utilization Committees. The consent of the patient or his physician is not required in such cases.

We trust that the foregoing adequately covers the specific inquiries which you have made.

EDWARDS & ANGELL

REPORT OF THE TREASURER

Agency Account

An appraisal of the "pooled fund" of the Society's invested fund, as reported by the Industrial National Bank, is appended to this report. (This appraisal is available at Executive Office for viewing by any member interested.)

The unit value has increased \$0.71. During the past quarter the fund has been increased by the addition of the bequest of the late Dr. Louisa Paine Tingley.

Due to accelerating costs the bank has increased its charges for handling the account for the Society, with the estimated 1967 increase to be \$165.

R.I. Medical Journal

In 1966 the Medical Journal operated in the "black" for the first time in three years. Receipts from all sources amounted to \$26,765.09, and expenses were \$20,998.65, leaving a cash operating balance of \$6,550.14.

Bequest from Mrs. Carlotta S. Williams

On January 30, 1967 the Society was notified that it is named as a legatee under the last will and testament of Carlotta S. Williams of Cranston, widow of the late Dr. Pearl Williams. After making specified cash bequests, the will provides that the residue of the estate be divided into twelve equal shares, and three such shares are to be divided to give 2/5th thereof to Rhode Island Hospital; 1/5 to *R.I. Medical Society for general use in connection with the Medical Library maintained by said Society*; 1/5 to St. Elizabeth's Home; and 1/5 to All Saints Memorial Church.

In view of many needed improvements to the Medical Library the Council has authorized the Trustees to use funds from this bequest for such improvements during the coming summer.

Membership Dues

Under the bylaws members must pay their annual dues by MAY 1, or face suspension. Failure to pay within 15 days after notice from the Treasurer (i.e. May 15) results in forfeiture of membership. All members who had not paid their assessment by April 10, have been notified by me of the bylaw requirement in order that they may avoid suspension.

JOHN A. DILLON, M.D.

RHODE ISLAND STATE DEPARTMENT OF HEALTH Division of Health Education and Information Accident Prevention Program EMERGENCY MEDICAL SERVICES PROJECT PRELIMINARY REPORT:

SUMMARY OF HOSPITAL EMERGENCY ROOMS March 28, 1967

The purpose of this survey is to measure the availability and adequacy of emergency care services offered by hospitals in the State of Rhode Island. We hope the survey will result in the identification of problem areas in individual hospitals as they relate to the entire statewide system of emergency medical services. It is not our purpose to grade or classify individual institutions.

It is our hope that we will stimulate improvements by drawing the attention of those responsible to the existing conditions.

Utilizing the results of this survey as a basis, we hope to design and develop programs which will result in the upgrading of all emergency care services in the State.

Our ultimate goal is a better coordinated and more efficient system of total emergency medical services in Rhode Island. The total program will include on-site care of the injured or suddenly ill person, transportation and follow-up care in the hospital emergency room.

Our survey is not a study in depth of all aspects of the emergency room operation. In actuality, we attempted to evaluate existing practices as they compare to the Standards For Emergency Departments in hospitals as formulated by the Committee on Trauma, American College of Surgeons in 1963.

In fairness to all concerned, it must be emphasized that the standards set forth by the committee are desirable and should be used as ideals.

In their own words, the Committee says of their proposed standards, "In certain institutions many of them may be impractical."

Each hospital interview required approximately two (2) hours. All interviews were completed by a team consisting of Joseph Karas, M.D., representing the Rhode Island Medical Society, Mr. William Lang, Hospital Administrator, representing the Hospital Association of Rhode Island and Thomas C. Brown, Public Health Advisor, Accident Prevention Program, Rhode Island Department of Health.

The State of Rhode Island presently has thirteen (13) hospitals offering emergency medical care at their institutions. All thirteen (13) are voluntary, non-profit institutions. The smallest hospital has seventy-two (72) beds and the largest hospital has six hundred seventy-eight (678) beds.

(Continued on Page 432)



Picture of bursitis



treated with Parafon Forte® TABLETS

Paraflex® (chlorzoxazone)* 250 mg.
Tylenol® (acetaminophen) 300 mg.

**Parafon Forte helps to relieve pain,
restore mobility . . . stop pain-spasm feedback**

Here is why. PARAFON FORTE provides:

a nonsalicylate analgesic equal to aspirin for the relief of pain,^{1,2} yet unlikely to produce the irritation to the gastric mucosa so often associated with salicylate therapy³

and a skeletal muscle relaxant shown to have up to a 6-hour span of action,⁴⁻⁶ and to retain effectiveness even on continued administration,⁵⁻⁷ but which does not have the central effects of tranquilizing compounds.

Prescribe PARAFON FORTE for lasting spasmolysis and analgesia in sprains, strains, myalgias, low back pain, bursitis and other musculoskeletal disorders. Your patients will appreciate the restored comfort and lasting freedom of movement it usually provides.

Cautions and side effects: Use with caution in patients with known drug sensitivity. If a hypersensitivity reaction or symptoms suggestive of liver dysfunction are observed, the drug should be stopped. Occasionally, drowsiness, dizziness, light-headedness, malaise, overstimulation or gastrointestinal disturbances may be noted; rarely gastrointestinal bleeding, allergic skin rashes, petechiae, ecchymoses, angioneurotic edema or anaphylactic reactions may have been drug associated. While *Paraflex* (chlorzoxazone) has been suspected as being the cause of hepatic toxicity in approximately eighteen patients, it was not possible to state that the dysfunction was or was not drug induced. **Dosage:** Two tablets q.i.d. **Supplied:** Scored, light green tablets, imprinted "McNEIL"—bottles of 100.

References: 1. Batterman, R. C., and Grossman, A. J.: *Fed. Proc.* 14:316, 1955. 2. Goodman, L. S., and Gilman, A., ed.: *The Pharmacological Basis of Therapeutics*, ed. 3, New York, The Macmillan Company, 1965, p. 331. 3. Roth, J. L. A., et al.: *Gastroenterology* 44:146, 1963. 4. Conney, A. H., and Burns, J. J.: *J. Pharmacol. Exp. Ther.* 123:340, 1960. 5. Settel, E.: *Clin. Med.* 6:1373, 1959. 6. Berman, H. H., et al.: *Dis. Nerv. Syst.* 25:430, 1964. 7. Darienzo, C.: *Ibid.*, 27:189, 1966.

McNEIL

U. S. PATENT NO. 2,895,877
McNEIL LABORATORIES, INC., FORT WASHINGTON, PA.

removes the mental blur



that clouds vision

SOLFOTON®

Each tablet or capsule contains

PHENOBARBITAL.....16 mg.

(Warning: may be habit forming)

BENSULFOID® (See P D R).....65 mg.

Precaution: same as 16 mg. of phenobarbital



Constructive Therapy

A Solfoton tablet or capsule at 6 hour intervals maintains sedation at the threshold of calmness, sustaining a mental climate for purposeful living.

Literature and clinical samples sent upon request.

FEDERAL LAW PROHIBITS DISPENSING
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HOUSE OF DELEGATES

(Continued from Page 430)

In 1965, patient visits to emergency departments ranged from approximately 2,000 cases at the smallest hospitals to approximately 47,000 visits to the largest hospital. For 1965, all hospitals reported a total of 186,502 cases to the thirteen (13) emergency rooms.

THE FUTURE OF THE PRIVATE PRACTICE OF MEDICINE

**For Private Practitioners:
A Time for Involvement**

Time has all but run out for Rhode Island physicians to save their private practices from the consequence of social planning by the powerful partnership between government and university. With few, if any, really significant exceptions, the United States populace enjoys more and better medical care than is available anywhere else in the world. This directly resulted from harmonious cooperation between private practitioners, academicians, clergy and laity, as can only develop in a free-market economy. In light of the lessons of history, will the decline of medical free enterprise help or hinder further progress? The time for all physicians to become involved in trying to answer this question, in order to plan effectively for the future, is now or never.

Background Information:

A Noble Experiment Effectuated by Government Grants

With a \$1,168,000 federal, Office-of-Economic-Opportunity (OEO) grant, projected to last for 18 months, the Tufts Comprehensive Community Health Action Program (TCCHAP) was inaugurated in June, 1965, at Columbia Point in Boston and on the Mississippi River Delta in Bolivar County. Without much, if any, knowledge about it, the American taxpayer provided these funds, which were funneled through Tufts University School of Medicine, to supply complete, pre-paid health care in urban and rural environments, respectively. Centralized health facilities were designed, developed and rigidly controlled under government-and-university auspices. A second OEO grant of \$3,417,630, projected, this time, for only one year, starting January 15, 1967, was awarded to Tufts to continue the TCCHAP which has served as a model for nine other OEO-funded health centers across the nation. Through the interest of Massachusetts Senator Edward Kennedy, this program has also led directly to an appropriation from us taxpayers of \$50,000,000 in the current, national poverty program, to fund approximately 25 more health centers of this type.¹ A diagrammatic representation of this and other government-spawned programs, showing their most obvious effects on medical practice, is herein attached. One

can readily see how the private physician is being forced to finance the smothering of his own career.

On the Local Rhode Island Scene:

A Scrambling for Federal Funds

In 1961, the Brown University Corporation, encouraged by results of a feasibility study made possible by a \$35,000 grant from the Commonwealth Fund, authorized development of a basic, medical-education program at Brown. Since then, interested parties have worked toward the praiseworthy goal of approval by said corporation of a *complete* medical-school curriculum.²

Brown has launched a \$17,100,000 campaign for developing its physical plant and expanding its on-campus faculty. In order to build a clinical program without entailing the expense of constructing a University Hospital, Brown has entered into off-campus agreements with certain community hospitals. Through such agreements, the University has been exerting increasing influence upon these once autonomous hospitals by guiding their major policies, supervising major appointments to their medical staffs, and directing their efforts in community health planning. *Thus Brown is able to assume control without ownership* off-campus; and, thanks to the enforced generosity of the American taxpayer, Brown *can finance* these off-campus operations by funneling federal grants *without having to commit university funds*.

On January 11, 1967, a panel discussion on the Columbia Point Project was held by professors from Tufts University at Brown. Shortly thereafter, Brown's director of medicine, Dr. Henry S. M. Uhl, clarified his role as developer of the university's relationship with hospitals and of continuing education for physicians. With an eye to a federal grant to be approved by authority of the Children's Bureau under Section 532 of Title V, Part 4, of the Social Security Act of 1965, Dr. R. Cannon Eley, Chief of Pediatrics at Roger Williams General Hospital, drew up a proposal for a diagnostic and treatment center there for children and youth of the Federal Hill and Smith Hill neighborhoods.³ Conjectures indicate this could be a prototype for the adult urban center contemplated for the proposed Ambulatory Patient Care Complex at Rhode Island Hospital.

Politics also becomes a consideration when the carrot of government grants is offered. Legislative provisions stipulate that a health-planning facility, representative of state and local health agencies, as well as consumers of health services, must be operative before federal health grants will be allocated to Rhode Island. Some of the contenders for this prestidigorous political position are: Rhode Island Health Facilities Planning Council, Inc.; Rhode Island State Department of Health; Health

(Continued on next page)

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Division of the Council of Community Services. At the seminar-dinner on Areawide Planning for Health Facilities, sponsored by the first-named organization on March 8th, the collectivistic orientation of the speakers was gravely interesting.

Brown University's goal to raise the standards of medicine in the Rhode Island community is noble. So is Tufts University's and the government's and the hospital-policy maker's, and all the health planners'. But, caught up in their high ideals for macroplans, what will happen to those two microessences, the *sine-qua-non* elements: the patient and his doctor? Are the plans worth the price of losing that most essential ingredient for highest quality, most abundant health care, that mutual respect and understanding between patient and doctor, which can only grow from their *freely assumed* mutual *responsibility* to each other? "He who pays the piper calls the tune."

Conclusion:

Freedom is the mainspring of human progress, and a man who will not use his freedom to defend his freedom, does not deserve his freedom. Hospitals are gradually losing their autonomy to government-and-university control, and private, medical practitioners may be forced to follow suit if effective countermeasures are not soon taken. The medical community in Rhode Island needs to spark an *esprit de corps* from which effective ideas and actions can sprout to promote progress, instead of apathetically accepting "the powers that be" to drive us down the road to nicely planned, controlled and degenerate medicine.

Summing Up:

"Men are more likely to fight with each other for noble than for base motives. The most tyrannical political systems are those built, not on corruption, but on self-righteous fanaticisms — that one's own skills and knowledge have a special contribution to make to the salvation of humanity."⁴

REFERENCES

- ¹Tufts Medical Alumni Bulletin: March, 1967, p.9
- ⁴Dream Worth Dreaming (promotion brochure for Brown University's \$17.1 Million campaign) campaign.
- ³Proposed Children and Youth Project, Roger Williams General Hospital (Informational Only) by R. Cannon Eley, M.D.
- ²The Blinkers of a Profession and Its Critics: Don K. Price (The Scientific State, Belknap Press of the Harvard University Press, Cambridge, 1965, p. 143), Annals of Internal Medicine, Vol. 64, No. 4, April, 1966, p. 941.

CHILD-SCHOOL HEALTH COMMITTEE

The Child-School Health Committee was recently involved in conducting dialogues with the maternal and child health division of the State Health Department and the director of the Child Welfare Services of the Department of Social Welfare concerning implementation of recent Federal programs

which affect the medical care of children in this state. The medical care of children under the Child Welfare Services was discussed at length, emphasizing the desire of the committee to offer assistance to the Child Welfare Services in assisting them to fully implement the desired continuity in medicare care for children who are under their auspices. It was felt in the past that this care too often was fragmentary and clinic-oriented and many times the continuing-care physician did not have overall supervision of the medical disposition of children in foster homes. Mr. Anthony Ricci, the director of the Children's Center, told the committee that as these children in foster homes were now within the categories of Title 19, there will in the future be a private physician orientation of services for these children, preferably the physician chosen by the foster family to give continuous care to these children and all the medical decisions would primarily be made by this continuous-care physician. The children who reside at the Patrick I. O'Rourke Children's Center, although they are not eligible for Title 19 funds, will receive equal care under State auspices and hopefully this too will be physician oriented as far as specialty consultation is concerned.

It is hoped that these changes in funding will result in a new approach to medical care for children under State auspices. The medical care of children who are in State institutions or training schools is under the jurisdiction of State correctional authorities under the Department of Social Welfare and in paralleling the national concern about the availability of pediatric services to these children our committee intends to have discussions with these authorities in the near future.

There also was discussion of the importance of establishing adequate medical care standards for day-care centers in this state as it is felt that the new antipoverty programs and probably State sponsored day-care centers will require this. Our committee is planning to aid the Child Welfare Services in preparing a communication to Rhode Island physicians acquainting them with the scope of the problem of child abuse and ways in which they can help these families and children. Suggestions were also offered to the director as to the proper interval and extent of physical examinations for various age groups of children under their care. After discussion of the implications of this bill, it was felt that our committee would recommend to our legislative committee the consideration of the endorsement of HR-1977 Child Welfare Services which would amend Title 5 of the Social Security Act by extending and improving the federal state programs of Child Welfare Services. It is felt that this is a very worthwhile act which was originally to be introduced by our late Congressman Fogarty

but has been reintroduced by Representative Burke of Massachusetts. In essence it abolishes an inequity which exists under this act which diminishes matching funds available from the Federal government to states for Child Welfare Services. The director of the maternal and child health department of the Rhode Island Department of Health, Dr. John Hogan, discussed at length the recent appearance of special project grants under the Children's Bureau sponsored by his division which have appeared in our state.

Doctor Hogan was apprised of the committee's interest in the prevention of fragmentation in the services and it appeared there will have to be coordination between the projects if they are to be successful as there appears to be overlapping services extended in the areas serviced, as it also appears that Title 19 categories which in effect make many previously clinic cared for patients eligible for private care. With its desirable continuity of care it was pointed out that it was hoped that provisions are made in developing projects such as these for the inclusion of practicing physicians in general. The reason for this is that solely hospital based projects will probably encompass these Title 19 eligible patients and remove them from community based practice and in so doing increase fragmentation of services rather than decrease it as is intended in the basic philosophy of these newly implemented laws. It is felt that projects such as these will soon be wide-spread in Rhode Island and so the importance of the initial projects operating in ways that are acceptable to practicing physicians was pointed out.

The director of the Office of Economic Opportunity has requested and is utilizing Medical Guidelines for Head Start as devised by our committee to use as a standard for health care in all existing and proposed Head Start programs in Rhode Island.

Respectfully submitted,

JOHN E. FARLEY, M.D.

Chairman

LIBRARY

I have the pleasure to present the Librarian's report which shows the enormous amount of work done in the past year. Mrs. DeJong and her assistants spend a considerable amount of their time helping the members gather bibliographies for their papers, helping students with their theses, and helping the general public with all kinds of medical information through our Library or by directing them to the proper sources. This is done faithfully and intelligently.

The Committee, at a meeting held on September 22, voted to recommend to the Council that a request be filed for a government Medical Library Resource Grant.

I like to remind the members of our Society of the high value of our library in books, old and new, and in medical journals. Besides 413 periodicals published in the United States, we have 85 from abroad. A surprising reward is there for the visitor.

FRANCESCO RONCHESE, M.D.

Chairman

LIBRARIAN'S REPORT

There are enough journals housed in the third floor stacks to cover the chairs, the stage, and most of the floor of the auditorium in piles of from one to four feet high. We proved this last year when Mr. John Boyle, our very satisfactory "summer help," cleaned and moved every periodical to the auditorium. Then, with the librarian's help, he sorted, listed and returned same, in alphabetical order from Abbotempo to Zentralblatt. It is such a pleasure to find Dublin under "D" instead of having to use a shelf-map, that we've almost forgotten that the summer of 1966 was very humid!

This was a year of good meetings. The national Medical Library Association met in Boston in June, a site near enough to make commuting possible. We were able to attend several sessions, to take a course in current reference tools (it was fun to go back to school), and to serve on the hospitality committee with our Boston colleagues. The New England MLA met at Dartmouth where, between sessions, we browsed in the new Dana Biomedical Library, viewed the Orozco murals in the Baker Library, visited the Wilson anthropological museum, and admired the center campus with its handsome colonial buildings and equally handsome, modern Hopkins Center. Most of our discussions involved library matters but we were fortunate in hearing Doctor Robert Gosselin speak on the "Strange Circumstances Surrounding the Death of Napoleon Bonaparte," a talk that was a combination CPC and who-dun-it. The most recent meeting was a conference on regional medical library planning, held at the Countway Library. We came away full of excitement. . . .

Statistically speaking: We entertained 2,999 readers (1,203 physicians and 1,796 laymen). The circulation figures showed 1,812 periodicals borrowed from us and 354 textbooks, including 51 from the Davenport Collection. The interlibrary loan figures add up to 903 journals and 81 texts borrowed from our library while we received 72 items in answer to our requests. Other material borrowed included pamphlets, pictures, scrapbooks, and newsclippings. We photocopied 143 articles and prepared 216 bibliographies. Duplicate material given to other institutions included 8 bound volumes and 1,491 single issues. Advice concerning

(Continued on next page)

science fair projects and term papers was sent to 88 students via letter; the number visiting the Library was not counted. Accession-wise, we received 818 bound volumes of which 364 were duplicates. Our present total is 45,816 of which 34,973 have been catalogued and 6,813 unbound volumes have been processed. 111 volumes were bound and the bequest from Doctor Samuel Adelson made possible the restoring of 66 volumes from our important collection of Indexes. We are receiving 498 serials and periodicals, currently. Through the Medical Library Association Exchange we have received 40 single issues of journals, 7 of which completed volumes.

In conclusion, we wish to say "thank you" to all those who have helped us this winter during Mrs. Garreau's leave-of-absence. We thank the readers for being patient and the substitutes (Mrs. Trembl, part-time library aide, and the ladies of the Executive Office, Mrs. Kenyon and the Misses Hamilton and Sherman) for their assistance in keeping the show on the road.

MRS. HELEN E. DEJONG

MATERNAL HEALTH COMMITTEE

This committee met April 5, 1967 to discuss the proposed amendments to the present State of Rhode Island Abortion Law.

A general review and discussion of the changing medical indications for therapeutic abortion emphasized the rather constantly low incidence of this procedure (one per 2,500 births) on two large community obstetrical services over the last six years.

The committee unanimously agreed that a suitable hospital committee of physicians review all contemplated therapeutic abortions before approval for such procedure is granted.

Such a committee will serve the best interests of the patient and her fetus as well as preserve the medical standards and ethical integrity of her physician, his consultants, the hospital and the medical profession generally.

Respectfully submitted for the Chairman
BERTRAM H. BUXTON, JR., M.D.

MEDICAL CARE PROGRAMS

The Medical Care Programs Committee has been relatively inactive in view of the fact that negotiations with the State Department of Social Welfare regarding the Medicaid Program were carried forward by the president by authorization of the House of Delegates, and the program for Neighborhood Clinics under the Office of Economic Opportunity has been under consideration by the Executive Committee of the Providence Medical Association.

The Medical Care Programs Committee through the chairman has reviewed approximately 2 claims a week submitted by the Office of Dependents of

Military Personnel, now known as the Civilian Hospital and Medical Payment for the Uniformed Services.

Respectfully submitted,
RICHARD P. SEXTON, M.D.
Chairman

PUBLICATIONS

The Rhode Island Medical Journal is in an excellent position editorially and financially. During the past twelve months the editorial content of the Journal has been good, and ever improving in quality. It has been possible to publish close to eighty pages in each number. Special issues devoted to highway trauma; medical education; sports, and related injury have been well received with much favorable comment.

The arrangement with the State Medical Journal Advertising Bureau, Incorporated, has been a successful one; the quantity of advertising increases with the result that it is anticipated the Journal will be self-supporting, barring any unforeseen economic or political developments.

ROBERT V. LEWIS, M.D.
Chairman

PERINATAL MORTALITY

On March 29, 1967 the chairman and co-chairman of this committee attended a meeting to explore the potential benefits of a program to promote increased prenatal care in an effort to decrease infant mortality and birth defects in the State of Rhode Island.

This meeting was sponsored by the National Foundation (March of Dimes) which has operated similar programs elsewhere in the United States.

"Operation Stork," the program conducted in Chicago, concentrated its efforts on a 30 by 10 block area. Prior to the initiation of this program only 50 per cent of the expectant mothers in this area availed themselves of prenatal care.

In six months under this program the incidence of non-participants in prenatal care has dropped to 15 per cent.

Mr. Burke, The Executive Director of the Rhode Island Chapter of the National Foundation, stated that there was also inconclusive, but somewhat promising evidence that birth defects were also reduced.

This massive public education was the result of a collaborative effort of private agencies and organizations with the Chicago Department of Health.

Leaflets were placed in shopping center shopping bags, and posters were displayed in Department stores and other private and public areas. Prizes such as layettes were offered to pre-natal care participants if they reported early in pregnancy. A

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HOUSE OF DELEGATES

(Continued from Page 436)

speaker's bureau was formed and trained to speak before church and school groups. Motor pools for transportation and baby sitting services were organized.

Before such a program is initiated in Rhode Island the National Foundation wished to canvass those private and public organizations who would have a natural interest in the area of prenatal care as to the need, scope and pattern of such a plan.

The discussion that followed included the following observations:

1. That such a program would tend to duplicate efforts now underway in a maternal and child health care program at the St. Joseph's Hospital for certain South Providence census tracts.

2. That such a program did not fulfill the prevailing need of 60 per cent of the clinic patients who are not on Welfare for financial assistance in meeting maternity costs.

3. That such a program is aimed at 2 per cent of the pregnant population who deliver without prenatal care.

4. That such a program might encourage earlier registration thus effecting better perinatal results.

5. That such a program be integrated through school guidance and Health programs in cooperation with hospitals and medical organizations to expose the youth of the community to the need for continuing family medical care programs.

6. That the program include a Health Fair Demonstration of the benefits of preventive health care.

7. That we have insufficient statistics assembled at present to delineate the extent of the problem of insufficient prenatal care care to the development of infant mortality and birth defects.

8. That the Rhode Island Medical Society Perinatal Mortality committee is not effectual in developing statistics due to lack of funds for investigative purposes.

Mr. Burke concluded the meeting by suggesting that another meeting be called on April 19th for final formulation of a productive program.

Respectfully submitted,

BERTRAM H. BUXTON, JR., M.D.

Chairman

DISASTER

Since the last report is has been found unnecessary to call meetings of the Committee.

On Monday, March 13, 1967, the Committee Chairman attended the Governor's Civil Defense Conference held at the Colony Motor Hotel in Cranston. The meeting was devoted to a review of military-oriented defense measures at the State level.

The opening speaker, Mr. Santo Amato, of the R.I. Council of Defense, made a presentation of

the highlights of protection against nuclear weapons, their effects and their shielding problems, and discussed in detail the concepts of radiation versus contamination.

The next speaker, Mr. Richard Draine, of the Office of Civil Defense, Region I, outlined the regional fallout shelter program and that program's organization in the eight national regions. He stated that throughout the country 156,000,000 civil defense shelter spaces had been found available and have been stocked so as to provide protection for 80,000,000 people for one week, or 40,000,000 people for two weeks. Region I, in which Rhode Island is located, has stocked 40 per cent of its spaces, and Rhode Island has stocked 26 per cent of its existing shelter spaces, with active work continuing for stocking of still more.

The afternoon session consisted of a live briefing from the North American Air Defense Command (NORAD), Colorado Springs, Colorado, with discussion by Mr. Victor P. MacDavitt, of the New England Telephone & Telegraph Co., Boston.

Respectfully submitted,

JOHN B. LAWLOR, M.D.

SCIENTIFIC WORK AND ANNUAL MEETING

The Committee on Scientific Work and Annual Meeting is very happy to report that plans are complete for the Annual Scientific Meeting of the Rhode Island Medical Society which will take place on May 9th and 10th, 1967.

It is the opinion of the Committee that an excellent program has been prepared which contains subjects which should be of interest to the Medical Profession at large. Some of the highlights of the Meeting will be the appearance of Dr. Charles Hudson, President of the American Medical Association, who will speak at the luncheon on Wednesday, May 10, 1967. Howard Rusk will deliver the Chapin Oration on Tuesday evening, May 9, 1967, and George Harding, M.D., will be the principal speaker at the Annual Dinner on Wednesday evening, May 10, 1967. The title of his talk will be "The Doctor's Wife."

A. A. SAVASTANO, M.D.

Chairman

PHYSICIANS AND CARRIERS WORKMEN'S COMPENSATION

The Physicians and Carriers Workmen's Compensation Committee has met three different times since the last report. At one particular meeting office fees for Board-certified specialists and general practitioners were recommended because of problems which had been presented to the Committee. In addition a few cases where differences existed between Physicians and Insurance Carriers were resolved.

It is the opinion of the entire Committee that
(Continued on next page)

the Committee is serving the purpose for which it was intended.

A. A. SAVASTANO, M.D.
Chairman

SCIENCE FAIR

On April 2, 1967, the Science Fair Committee met at Marvel Gymnasium, Brown University, and viewed over four hundred exhibits on display at the Rhode Island Secondary Schools Science Fair. Three Honor Awards each were presented in both the Junior and Senior High School groups for the most outstanding exhibits with regard to content, originality, and presentation in the medical or public health fields. Awards were made as follows:

Senior High

Linda Chagnon — Classical, Providence —
"The Mechanism of Protein Synthesis"
Carol Slowick — St. Clare, Woonsocket —
"Selective Osmosis of the Silicone Membrane"
Coleen Levesque — Burrillville, Harrisville —
"Stress and Birth Defects"

Junior High

David LaGreca — Smithfield Jr. High, Smithfield
"How Does Jet Travel Affect Your Metabolic Clock?"
Fred Mullen — St. Joseph's, Woonsocket —
"Hydrospace: Its Psycho-Physiological Effects on Man"
Arlene Sakowich — St. Clare, Woonsocket —
"Glue Inhalation — Its Effect on Mice"

Each award consists of a \$25 savings bond, and a certificate which will be presented at the annual meeting of the Rhode Island Medical Society in May.

Respectfully submitted,
JOHN C. LATHROP, M.D.
Chairman, Science Fair Com.

MEDICAL ASPECTS OF SPORTS

The Committee on the Medical Aspects of Sports is extremely happy to report that the plans are complete for its Meeting on August 17th and 18th at the University of Rhode Island.

The Committee feels that an excellent Program has been arranged which should prove of considerable interest to many of the people who are interested in this field. The Programs are now in the hands of the printer and will be sent out some time during the middle of May.

A. A. SAVASTANO, M.D.
Chairman

SOCIAL WELFARE

In the interest of accuracy and to avoid misrepresentation, the information herein reported represents the Committee's efforts to gather information for the membership concerning the Medical Assistance Program (Title 19) promulgated January 1, 1967 in Rhode Island by the Rhode Island Department of Social Welfare.

In accordance with Department regulations the major services are: 1. In-patient hospital services; 2. physicians' services in home or in office; 3. in-patient physician services; 4. nursing or convalescent home services; 5. visiting nurse services; 6. drugs as prescribed; 7. dental services; 8. laboratory services; 9. certain laboratory services; 10. diagnostic and therapeutic x-ray services. All medical benefits under private or group insurance policies must be used before medical assistance services may be paid.

Payments must be such that those eligible for Title 19 aid can obtain care at least to the extent care is available to the general population of the State. Patients are private patients and not 'clinic' patients. Only those providers of services who accept the agreed fee as payment in full can participate in the State plan. The Rhode Island Medical Society has not accepted the present Title 19 plan as it is so constituted and continues its efforts to secure resolution of those areas wherein disagreement between the Department and the Society exists.

Who is eligible for Medicaid in Rhode Island?

(a) All persons who receive all or part of their incomes from the Federally-aided public assistance programs: Old-Age Assistance, Aid to the Blind, Aid to Families with Dependent Children, Aid to the Permanently and Totally Disabled. (b) All persons who, except for having enough for their daily needs (under State assistance standards) could qualify for public assistance under the Federal eligibility requirements. (c) All children (under 21) who could not qualify for public assistance but whose families have Federal category characteristics mentioned in (a) and who cannot afford to pay for all or part of the cost of the medical care the children need. This includes families in which the parents are working but do not earn enough to pay for medical expenses.

What are the maintenance levels for persons eligible for Medicaid coverage in Rhode Island? The amount of income they have will be taken into consideration in determining what people are eligible. In general, however, incomes at or below the following amounts are considered to be sufficient only for maintenance, and not available for medical care. (a) \$2,500 for a single person, (b) \$3,500 for two family members (these can be a couple living together or a mother and child under 21). The allowance of \$400 for each additional family member under 21 raises the eligibility limit to \$4,300 for a four member family. A six member family may be eligible with an income of \$5,100 a year, and so on up. All families in these income limits are not necessarily eligible for Title 19 benefits in Rhode Island. To be eligible a family must have the module of Federal category characteristics listed

in (a), when the family income and resources exceed the financial limits set for public assistance, but is unable to meet medical bills. Title 19 of the 1965 Social Security amendments specifies that to qualify families must have children who are dependent and deprived of parental support by reason of death, continued absence of a parent from the home, or a parent's incapacity or unemployment.

Problems can arise concerning Medicaid eligibility for people who might qualify incomewise, but not coincidentally Federal categorywise ('relief characteristics'). A two parent family with four children, mother and father each gainfully employed with combined income of \$5,100, are not necessarily eligible for Title 19 benefits. Were this family to lose the mother's paycheck through illness, pregnancy, etc., reducing the total family income to \$4,000, eligibility for Medicaid benefits would exist, because of one parent's incapacity to work. Yet another family of six with income of \$4,000 combined may not be eligible for Medicaid, because they lack a Federal category, that is, one parent unemployed. In this family the mother has never sought employment outside of the household. This illustration is only one area of potential eligibility for Medicaid in Rhode Island, which in our Society of mobility, fluctuation, and change renders it imperative that eligibility for Medicaid be considered thoroughly before rendering a decision concerning an individual family's medical assistance needs.

Reasonable Charges. According to the Medicaid law as published in the Federal Registrar, February 8, 1967 by Social Security Commissioner Robert M. Ball, two basic criteria for determining reasonable charges for physicians' services are: (1) the customary charge for similar services generally made by the physician, and (2) the prevailing charges in the locality for similar services. In addition, the law specifies the reasonable charge cannot be higher than the charge applicable for a comparable service under comparable circumstances to the carrier's own policyholders and subscribers. Income or economic status of the beneficiary is not a factor to be considered by the carriers in determining reasonable charges. A doctor's charge will be considered customary if it is the amount he charges patients generally for the particular service.

The report of the First National Congress on the Socio-Economics of Health Care, sponsored by the Council on Medical Services in the Division of Socio-Economic Activities in the American Medical Association held in Chicago, January, 1967, is included as an Appendix for the members of the House of Delegates to read.

Respectfully submitted,
PETER L. MATHIEU, JR., M.D.
Chairman

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Nutley, N.J. 07110

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, hallucinations); changes in EEG patterns. Abrupt cessation after prolonged over-dosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlor-diazepoxide HCl.

Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

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Josie is just one of the many secretaries at Physicians Service who handles correspondence from doctors and medical assistants. As secretary to the Claims Manager, Josie also answers inquiries from subscribers about their claims.

Because Josie has been with Physicians Service for over seven years, she is also able to handle specific inquiries from doctors and doctors' secretaries regarding form letters sent out by Physicians Service.

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